GSA 2023 WINTER FORUM

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Financial Freedom for Anesthesiologists

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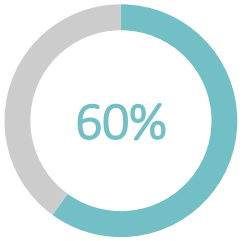
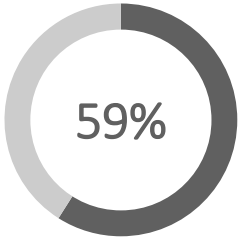
Poll Everywhere

Physicians are intelligent, educated, and have high income.

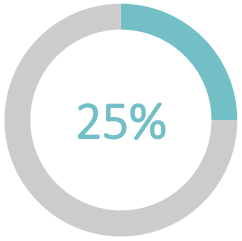
How do we really fair?



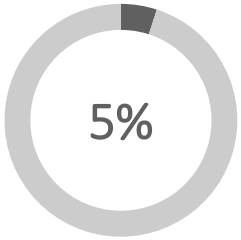
60% of physicians age 40-45 have a net worth less than 1 M



59% of physicians under 45 have less than $100k in retirement savings



25% on average of physicians live paycheck to paycheck & have less than $25k in cash



5% of physicians under 45 believe they are “very knowledgeable” about personal finance

Retirement

Have enough to retire from work,
not from life

How much do I need?

In short,
if you plan to retire after 30 years
and want 60% of your income,
save 20% pre-tax income, every year.

Let's see the math...

The Long Answer

We will use a % of your income for avg expenses along with these assumptions.

- **You are invested in low cost, long term funds**
  We'll discuss stocks and investments later. These calculations assume average 60% stock, 40% bond & 5-6% return.
- **You are retiring after 30 years of work**
  Your savings rate will go up or down if you retire earlier or later or if you have higher expenses.
- **You continue your investments during retirement**
  You're not increasing savings, but you're not taking it all out of investments at once either.
- **Taxes remain stable**
  Your tax bracket might change, but overall the brackets and laws remain similar.

Years / Expenses	Required Savings Rate		
Years Spent in Retirement	20	30	40
Expenses = 50% Pre-Tax Salary	14%	17%	19%
Expenses = 70% Pre-Tax Salary	19%	23%	26%

Average, 20% Savings Rate.

Based on data from W. Pfau, PhD Economics, Tokyo & Princeton Univ.
J. of Financial Planning, May 2011

The Simple Version

If you don't want to know the ins and outs of every plan, just do this.

- **401k or 403b**
  Contribute the maximum you can every year.
- **Traditional IRA**
  Your income is too high to get the tax benefit.
- **Roth IRA & Backdoor Roths**
  You can't contribute to a Roth IRA directly. But if you put money in a traditional IRA, you can still "backdoor" to a Roth every year.
- **457s & Health Savings Accounts (HSA)**
  457: If your institution is stable & will distribute a 457 to you monthly when you leave, this is another 401k.
  HSA: If your health insurance has a high deductible, use this as another IRA.

Each plan works in different ways, but if you max your 401k, Backdoor Roth, and save a little extra to meet 20%...

You'll be able to retire at 65 just fine.

A Quick Review

Government/Academic

403b

457b

FICA Alternative

Private Practice

401k +/- 457b

Solo 401k

Cash Balance

Individual

Roth IRA Trad IRA

HSA

Roth IRAs

Roth IRAs are personal plans.
Unlike T-IRAs, contributions are post tax.

The Basics

Anyone can open a Roth IRA at any investment company.
You are penalized 10% if you withdraw gains before 59 ½, but you can always take out your own contributions.

Tax Policy : Post-Tax

Contributions are post-tax, so there's no deduction.
However, you will never pay taxes on any investment gains.

Contribution Limit (2023) : $6,500

$7,500 if you're over 50. Can't contribute directly if income > $139k.
This contribution limit is shared with a Traditional IRA.

Investment Options

No limitations

High income individuals can't contribute directly to a Roth IRA because they "income out."

You can contribute via a "Backdoor" Roth IRA by converting a Traditional IRA.

401(k)/403(b)

These are employer sponsored plans. You should almost always contribute.

These are pre-tax and deductible regardless of income.

This is the best tax break you have.

But there are caveats to 401ks…

The Basics

Your company must sponsor the plan. You can deduct money from your paycheck. You are penalized 10% for withdrawals before 59 ½.

Tax Policy : Pre-Tax

Your contributions are pre-tax, directly lowering your taxable income. Withdrawals are taxed at income rates.

Contribution Limit (2023) : $22,500

Your employer will often ***match*** a certain percentage; together, you can contribute up to $66,000. Add $7,500 if you're over 50.

Investment Options

Employer sets your options. Most plans have a few good options, but unless fees are very high, it is still advisable to contribute.

401k Caveats

There are some minor issues with 401ks as a highly compensated employee (HCE).

Non-Discrimination

Non-HCEs must be given equal treatment on 401(k)s.
Non-HCEs are anyone making less than $150,000 (2023).

The 2% Deferral Rule (ADP Rule)

If your scribe only contributes 2% of her salary to the same 401k, you can only contribute 2% more, or 4% of your salary.

The 2% Contribution Rule (ACP Rule)

The same as the previous rule, but you now add employee plus employer contributions (match) to make sure the plan still passes.

Match Limits

On top of this, employers can only consider up to $330,000 (2023) when matching your salary, even if you make more.

For most group practices, none of this will matter.

But if your group employs RNs, secretaries, or scribes, consider these rules.

If they don't contribute, you may be in violation.

Rule of 55

Normally, you cannot withdraw from a 401k or 403b prior to 59 ½.

However, if you leave your job the year you turn 55 or after, you can access the account from your last job.

If you rollover from prior positions, this means you can access your 401k as early as 54.

457(b)

457(b) plans are employer sponsored. They are in addition to a 403b/401k.

The Basics

Usually limited to HCEs (unless you're at the VA).
Work like 401k/403bs but are an additional plan.
You can withdraw ***at any age without penalty if you leave your job***.

Tax Policy : Pre-Tax

Your contributions are pre-tax, directly lowering your taxable income. Withdrawals are taxed at income rates.

Contribution Limit (2023) : $22,500

Rarely employer match, but can add $7,500 over 50 and another $22,500 within three years of retirement.
This contribution limit IS NOT shared with a 403b/401k.

Investment Options

Employer sets your investment options ***as well as your withdrawal (distribution) options.***

These are basically an additional 401k/403b.

There is rarely an employer match, but it is another tax-deductible account.

There are important caveats...

457 Caveats

If your employer is:

Stable, Long-Term, and has good distribution and investment options

You've got another 401k!

If not, weigh your options carefully.

Fund Location

Your funds are held with the employer, not in trust. This means that, unlike 401k/403b, if your employer goes bankrupt, your employer's creditors can go after all 457s.

Distribution

Read your distribution/withdrawal options *carefully*. "Lump sum", or your entire retirement at once, is a terrible option.

Employer Change

Government 457s can go to an IRA, 403b, 401k, or 457. Non-government 457s can ONLY go to another 457.

Retirement

One large benefit is these work well for early retirement. There is no penalty for distributions before 59 ½.

HSA – Health Savings Accounts

HSAs are available only to those with a high insurance deductible.

The Basics

Limited to people with insurance deductibles >$1500 (individual) or >$3000 (families).
20% penalty for use before 65 ***except for health expenses.***

Tax Policy : Pre-Tax *and* Post-Tax

Contributions are tax deductible. Withdrawals are not taxed *if used for health care*. Otherwise, they are taxed like an IRA (income rates).

Contribution Limit (2023) : $3,850

$7,750 for families. Add $1,000 over 50.

Investment Options

No limitations. May associate a debit card with the account.

If your hospital offers a high deductible insurance plan, this may be an opportunity to fund another IRA.

If you use health care rarely, this is a great extra IRA for 65+.

You can keep receipts and reimburse yourself from your HSA anytime, even years later.

Investing

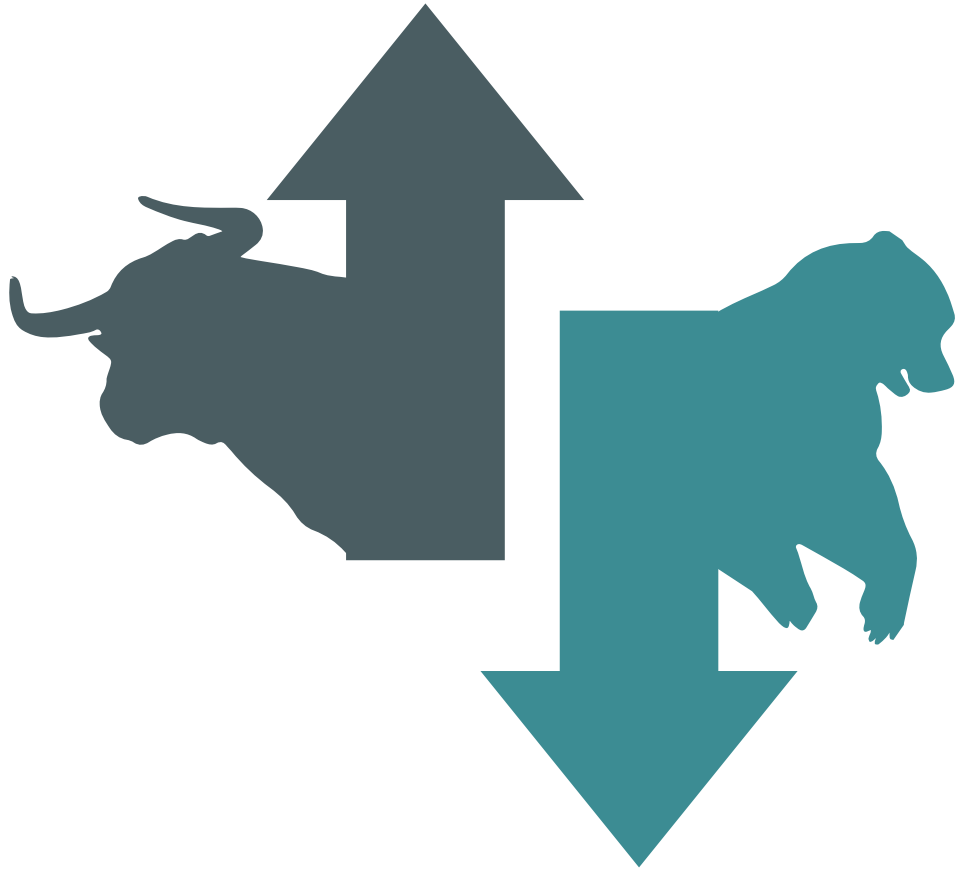
Make money while you sleep, or you'll work until you die

Temper your Expectations

The first thing new investors should learn before investing is to temper their expectations.

Many "advisors" throw around numbers like 12% average annual gain.

The mistake is understanding annualized vs average return and forgetting costs.



Annualized vs Average Returns

Year	Value	Percent Change
1	$ 100	-
2	$ 200	100%
3	$ 100	-50%

What is the difference?

Average Return = (100 - 50) / 2
= 25%

Annualized Return = $(1+0)^{(1/2)} - 1$
= 0%

Don't be fooled by "average" return.
Always ask for annualized return.

How much can I expect?

Stock / Bond %	Return Before Inflation
100 / 0	10.1 %
80 / 20	9.4 %
60 / 40	8.6 %
40 / 60	7.7 %
20 / 80	6.6 %

Based on Vanguard data 1926 - 2018

Financial Experts will claim they can deliver a variety of high returns.

Statistically, you should expect 7% compound growth with only stocks.

This is real return, after inflation and taxes.

You should plan for 5 – 6% growth yearly.

Should I invest in stocks?

It all depends on when you need your money.

For retirement, stocks are one of your best investment options.

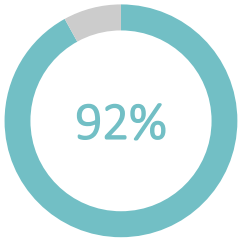
For shorter terms, you want to avoid the ups and downs of stocks.

As a simple guide:

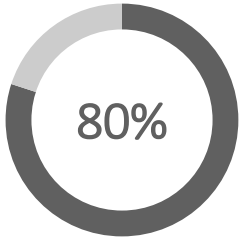
< 3 years: Savings Accounts
3-5 years: Bonds or Certificates of Deposit
6+ Years: Stocks and Bonds

Certificates of Deposit have been a poor option in the post-COVID financial environment.

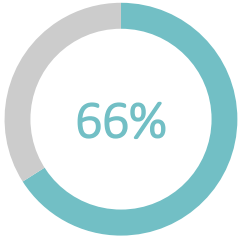
Active vs Passive Investing



92% of actively managed funds have lost money compared to a buy and hold index fund strategy



80% of active traders lost money 1992-2006. Passive investing made money over the same period.



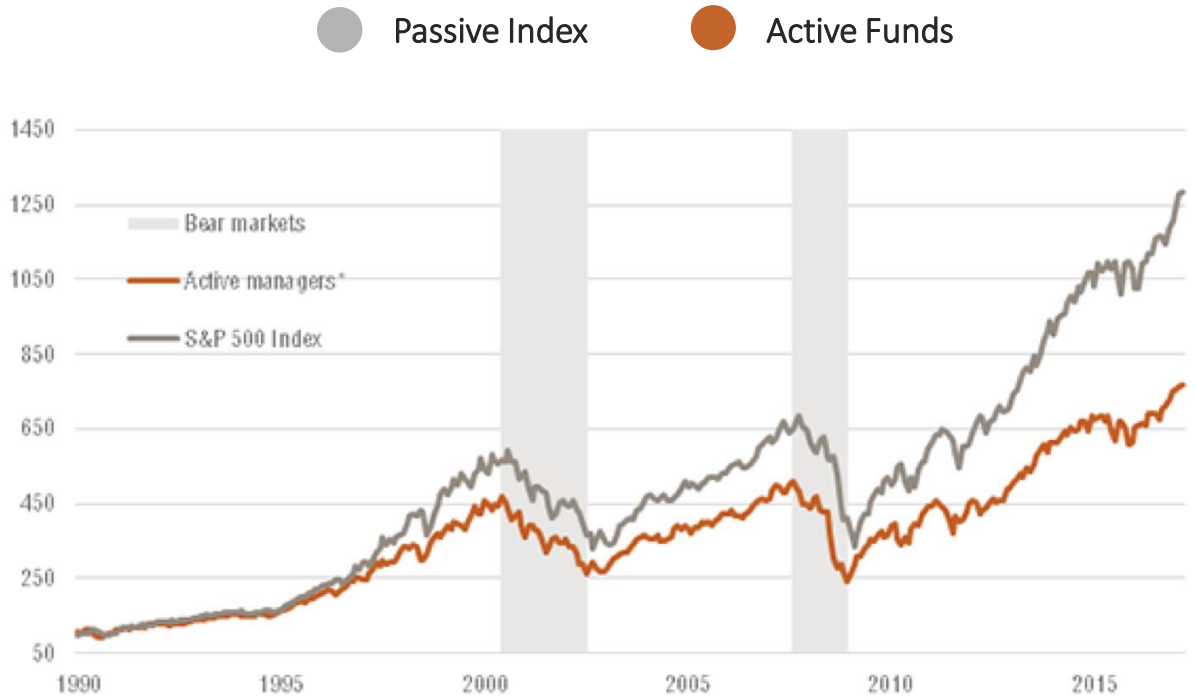
66% of active funds did not survive the last 15 years

Active vs Passive Investing

"I or my advisor can beat the market, if I time it right."

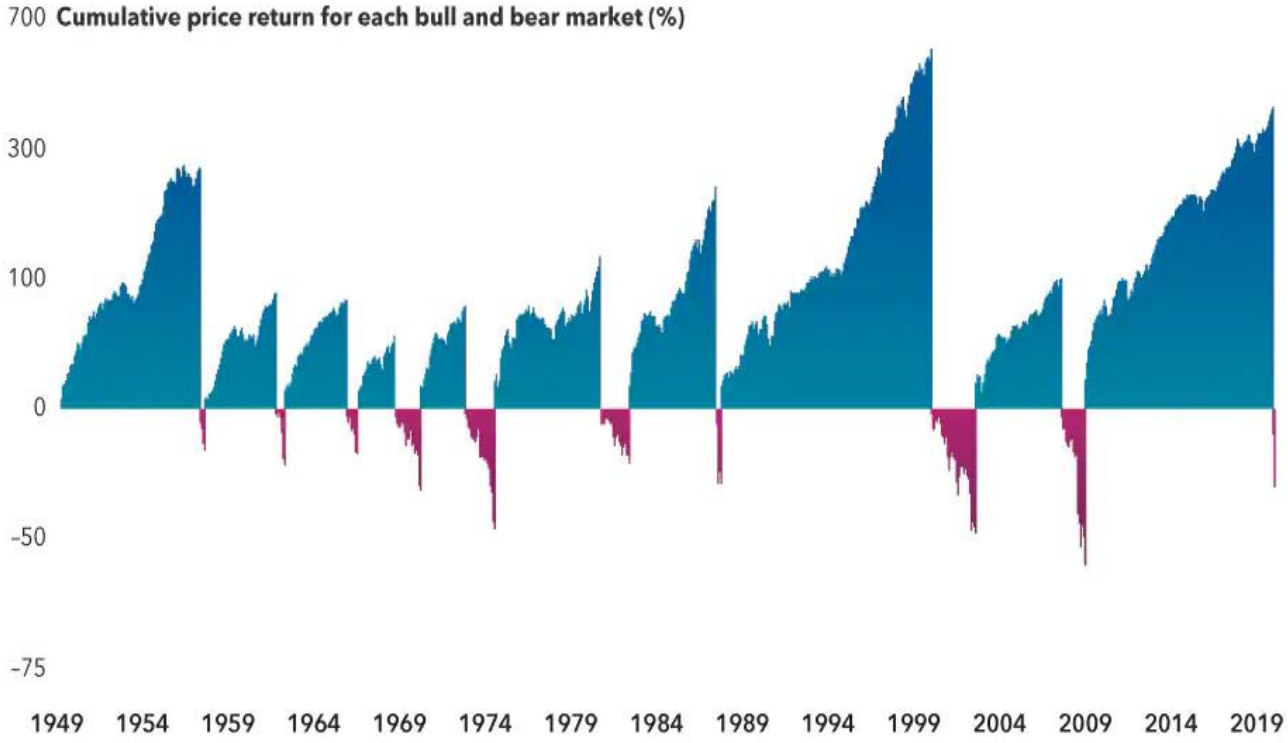
Passive outperforms. You're better off owning a broad amount of the market.

Here's the data.



Source: Morningstar, The Fiduciary Group, Mutual Funds 1990-2019

Buy and Hold Strategy



- Average Bull (Up) Market:
  +279%, 72 months long

- Average Bear (Down) Market:
  -33%, 14 months long

The market comes back if you wait.
If you sell, you're locked into the low point.

What makes better investors?

Active Investing is like betting on the Superbowl. Passive investing is like owning part of the NFL and sharing in the profits.

So if you can't choose better stocks, what can you do?

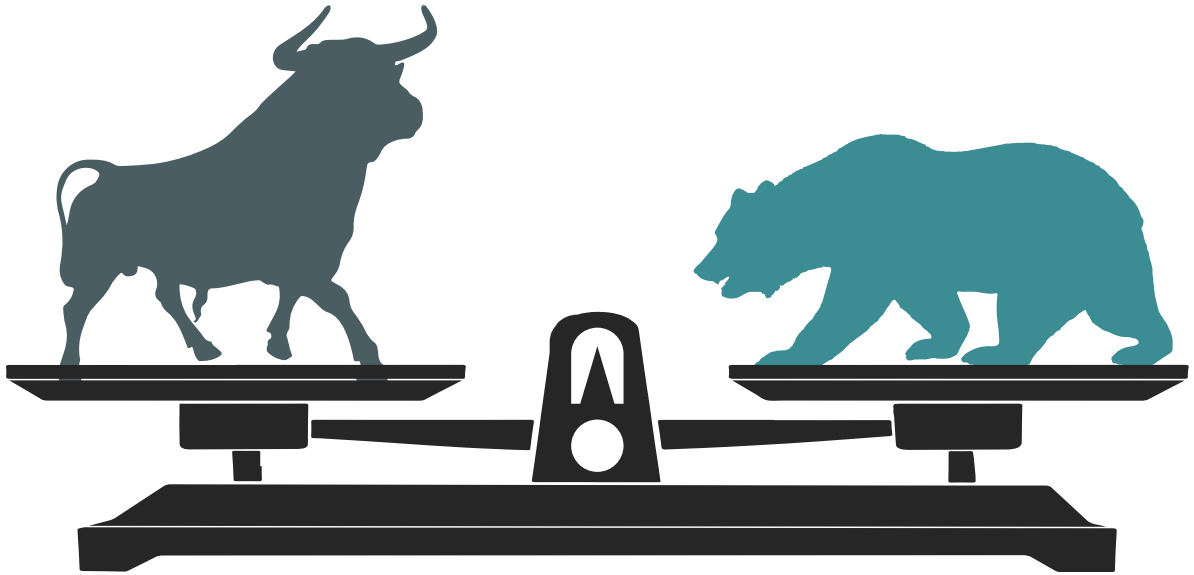
You can know what you're buying, reduce your fees, and reduce your taxes.

Costs

Next, you need to be aware of your costs.

Even after you get your annualized return, you still have:

Inflation
Taxes (Especially on Dividends)
Fees



What are Mutual Funds?

Mutual funds are large collections of stocks and bonds.

This is in contrast to owning stock in a single company or group of companies.

If you only own stock in one company, it ties your fortune to their success or failure.

Exchange-Traded Fund (ETF)

Mutual Funds process their buy and sell orders at the end of the trading day.

ETFs are like mutual funds you can buy and sell across the course of a day.

Be careful that this doesn't prompt you to begin attempting to "time the market".

ETFs vs Mutual Funds

ETF Pros:

Lower fees for smaller investments.

More tax beneficial.

ETFs allow managers to pick which stocks they are selling to reduce capital gains tax.

ETF Cons:

Can lead to timing the market.

Subject to bid/ask (the difference between sell and buy requests, reducing gains).

Can be sold at an institutional discount, delaying your ability to sell for gain.

Which funds are *good*?

The best retirement funds are diversified*, track a* broad index *(such as the whole stock market), and* have low fees.

When selecting funds, you need to know three types of fees.

Expense Ratios

The cost to run a fund, aka how much the investment company makes.

Front-Load Fees

How much you pay up front to buy a mutual fund.

Back-Load Fees

How much you pay when you sell a mutual fund.

Mutual Funds Fees

You should only ever have mutual funds with low expense ratios, less than 0.3%.

Never buy a fund that has a front or back load fee.

These fees are listed in fund descriptions by law.

Why does it matter?

A 0.75% change in your fees can cost you 20% of your retirement over 30 years.

Which funds?

Okay, so I need low fees. But…

Which funds do I buy?

How many stocks and bonds should they have?

When do I buy or sell them?

The amount of stocks and bonds you have is called "Asset Allocation".

It depends on your risk tolerance.

For those wanting a simple solution, Target Retirement Index Funds *have low fees and adjust this for you as you age.*

The Simple Version

Target Retirement Funds follow these ideas:

- **Bond Percent**
  Hold your age +/- 10 percent in bonds. Everything else is stock.
- **Low Expense Ratio & Fees**
  Most Target Retirement **Index** funds have very low fees and no load fees.
- **No target retirement funds in your 401k?**
  Your 401k should have a "Bond Market Index" and a "Stock Market Index". The percent of money in "Bond Market" is your age; the rest is stocks. This is what target retirement funds do anyway.
- **When do I buy or sell them?**
  Buy every paycheck with your 401k. Buy annually with your Roth. Hold onto them until you need them in retirement.

Examples of good Target Retirement Mutual Funds with low fees:

Vanguard Target Retirement
Fidelity Freedom Index Funds
Schwab Target Index Funds

Now, let's talk about why you might want to do this yourself…

Long Term Capital Gains

Married Taxable Income (2023)	Long Term Gains Tax
$0 – $89,250	0 %
$89,251 - $553,850	15 %
$553,851	20 %

Stocks are not taxed like income ***if held more than one year.***

They are taxed as "capital gains", relative to your total taxable income.

Taxable Income is your Work Income + Tax Deferred Accounts + Investment Income.

Long Term Capital Gains

Married Taxable Income (2023)	Long Term Gains Tax
$0 – $89,250	0 %
$89,251 - $553,850	15 %
$553,851	20 %

As an example:

I buy stock at $70,000. I sell it at $140,000.
I have $70,000 in gains.

During work years, my taxed income is
$250k + $70k → 15% tax rate for my stocks.

During retirement, my taxed income is
$0k + $70k = 0% tax on my stocks.

Municipal Bonds

Municipal Bonds are bonds offered by states or cities. These are federally tax-exempt and state exempt in their home state.

Funds with these return less but can offer big tax advantages.

It is common to buy these funds in non-retirement accounts to avoid taxes.

$$\text{Non-Muni Fund Yield} = \frac{\text{Muni Fund Yield}}{1 - (\text{Fed+State Tax Rate})}$$

If Federal Tax Rate = 35% & State = 5%
And your Muni fund lists a yield of 4%

$$\text{Non-Muni Fund} = \frac{.04}{1 - (0.35 + 0.05)} = 6.67\%$$

Your Non-Muni Bond Fund needs to return 6.67% in order to match 4% on your Municipal Bond Fund.

Non-Governmental Bonds

Credit Rating Scales by Agency, Long-Term

Moody's	S&P	Fitch	
Aaa	AAA	AAA	Prime
Aa1	AA+	AA+	High grade
Aa2	AA	AA	
Aa3	AA-	AA-	
A1	A+	A+	Upper medium grade
A2	A	A	
A3	A-	A-	
Baa1	BBB+	BBB+	Lower medium grade
Baa2	BBB	BBB	
Baa3	BBB-	BBB-	
Ba1	BB+	BB+	Non-investment grade speculative
Ba2	BB	BB	
Ba3	BB-	BB-	
B1	B+	B+	Highly speculative
B2	B	B	
B3	B-	B-	
Caa1	CCC+	CCC	Substantial risk
Caa2	CCC		Extremely speculative
Caa3	CCC-		Default imminent with little prospect for recovery
Ca	CC	CC	
	C	C	
C	D	D	In default
/			
/			

"Junk"

WOLFSTREET.com

Non-Gov. Bonds can have better gains than Gov. Bonds. Non-junk bonds are usually included in "Total Bond" Funds for gain.

Anything below BBB- is a "junk" bond, or speculative. Consider these high risk.

If you invest in Bond Funds other than "Total Bond Market", you should look at the average credit rating of the bonds.

Avoiding Taxes

Knowing how capital gains work, we can put:

Tax-Deferred (401k) – Bond + Stock
Roth – Mostly Stock, Some Bond
Taxable – Stock Only or Stock + Muni Bonds

We can "hide" bond interest taxes in retirement accounts this way.

Avoiding Taxes

Account	Value	Annual Usage
Roth IRA	500k	$40,000
Taxable	1.5 M	$60,000
401k	1.5 M	$24,000

Can we get 120k in retirement tax free?

Sell stock at 60k (+30k gains).
+40k from Roth IRA, tax free.
+24k from our 401k.
-24k standard married deduction.

Taxable Income = 30k.
Long Term Stock Tax = 0%
Total Tax = 0%
Income = $60 + $40 + $24 = $124k

How much of each fund?

An example for a 30 year old:

VBTLX (Vanguard Total Bond Index) = 20%
VTSAX (Vanguard Total Stock Index) = 56%
VTIAX (Vanguard Total Intl Stock Index) = 24%

Average Expense Ratio = 0.06%

Many buy and hold investors use this asset allocation to own the whole market:

Bonds = Age – 10
US Stocks = 70-80% of Stocks
Intl Stocks = 20-30% of Stocks

They accomplish this by a "Three Fund Portfolio", or low cost Total US Stock + Total International Stock + Total Bond fund.

How do I evaluate a fund?

Vanguard Total Stock Market Index Fund Admiral Shares (VTSAX)

Average annual returns—updated monthly
as of 03/31/2020

	1-yr	3-yr	5-yr	10-yr
Total Stock Mkt Idx Adm	-9.24%	3.98%	5.73%	10.15%

Fund facts

Asset class	Domestic Stock - General
Category	Large Blend
Expense ratio as of 04/28/2020	0.04%
Minimum investment	$3,000 Available as an ETF (starting at the price of one share).
Fund number	0585
CUSIP	922908728
Fund advisor	Vanguard Equity Index Group

Look for the long-term return and expenses.

This example is the Vanguard Total Stock Market Index.

This is a low fee index fund tracking the entire stock market.

You can also look up the ticker (the 5-letter tracker) on Morningstar.com.
The ticker here is VTSAX.

A Bond Fund Example

Here is an example for a bond fund, Vanguard Total Bond Market Index.

As discussed, you should check the average maturation date on these.

Vanguard Total Bond Market Index Fund Admiral Shares (VBTLX)

Average annual returns—updated monthly
as of 03/31/2020

	1-yr	3-yr	5-yr	10-yr
Total Bond Mkt Index Adm	9.06%	4.83%	3.33%	3.84%

Fund facts

Asset class	Intermediate-Term Bond
Category	Intermediate-Term Bond
Expense ratio as of 04/28/2020	0.05%
Minimum investment	$3,000
	Available as an ETF (starting at the price of one share).
Fund number	0584
CUSIP	921937603
Fund advisor	Vanguard Fixed Income Group

Characteristics
as of 03/31/2020

Fund total net assets	$259.3 billion
Number of bonds	9237
Average effective maturity	8.1 years
Average duration	6.2 years
Yield to maturity	1.6%

Why not just use Target Retirement?

You can!

Vanguard Target Retirement Funds use total index funds to make up a mutual fund.

Your fees and taxes will be slightly higher, but it will rebalance for you.

Some people prefer this when they have lots of accounts (401k, Roth, etc.) or to help their spouse if they die.

Can’t I hire someone?

Yes!

*Not everyone can, or should, manage their own investments. You **should** understand the basics, but sometimes you just need help.*

Be careful! There are no legal requirements to call yourself a financial advisor.

The key to getting good help is know what you’re paying for and how you’re paying for it.

Every cent you pay an advisor is money that isn’t working for you. Make sure you’re getting a good deal.

Hiring an Advisor

Advisors get paid 3 main ways.

Flat, Hourly, or Retainer Fees (Fee-Only)

You pay the advisor a set amount for a service. You can keep them on retainer or go on to do things yourself. Often $200-300 / hr.

Assets Under Management (AUM) (Fee-Based)

The advisor gets paid a set % of your assets **each year**. For example, if an AUM is 1% and they manage 1 M, you are paying $10,000 each year.

Commission

They make money for selling you something, like an annuity. The conflict of interest is enormous.

Never hire one paid by commission.

Start with an hourly fee.

Get advice, see if their plan includes low cost index mutual funds, then you can decide if their AUM is worth it.

Finding a Good Advisor

The Garrett Planning Network is a Non-Profit that tracks Fee-Only Financial Advisors.

They are paid hourly, often have free intro sessions, and will do it remote.

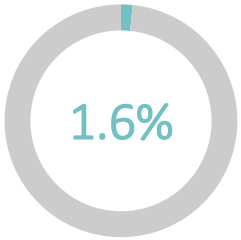
They also agree to fiduciary responsibility, a vow to work in the best interest of their client.

GarrettPlanningNetwork.com

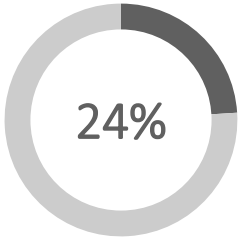
Asset Protection

Protect your nest egg and reduce your liabilities

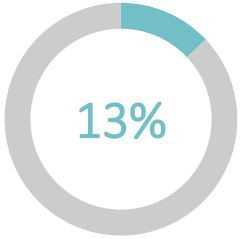
Asset Protection



1.6% of Malpractice lawsuits result in a payout. Almost all are below or at policy limits.



24% of physicians get divorced, which can be a financial catastrophe.



13% of personal injury liability awards are greater than 1 M.

Collective Bargaining

Pros:

Can improve benefits or restrictive covenants.

Change work environment

Assist bargaining for support staff.

Cons:

Ethically and morally difficult if disrupting patient care.

Less effective in competitive areas with multiple groups.

Cannot change capital intensive enterprises.

Generally not beneficial for salary.

Tenants by Entirety

With each asset you have, you should look up whether your state allows you to protect it with "Tenants by Entirety."

This means that both owners of an asset, you and your spouse, own it "completely."

So if a judgement occurs against one of you, that asset cannot be taken away because your spouse also owns the whole thing.

Retirement Accounts

Retirement accounts are well protected in every state.

Occasionally 401ks are protected better than IRAs, which can be a reason to redirect your assets later in life.

A few states allow Tenancy By Entirety for investment or retirement accounts.

Retirement Accounts are the easiest and most straightforward asset protection strategy.

Homestead Laws

Homestead Laws protect a certain value of your primary home during bankruptcy after a lawsuit.

Google "Homestead Exemption" for your specific state. Florida has unlimited protection. Utah limits it to $40k.

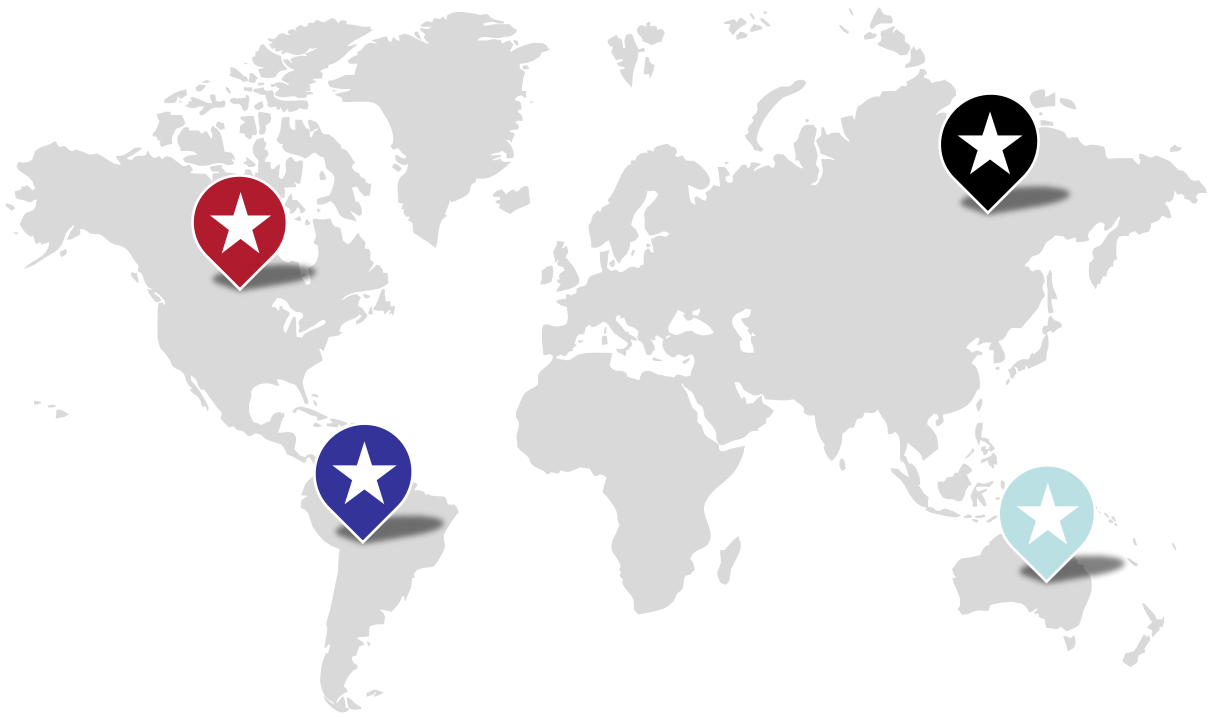
Some states do allow Tenants By Entirety for primary homes.

Toxic Assets

A toxic asset is one that could produce a liability, like a rental property or business.

The simplest solution is to separate these assets from your primary assets inside a business entity, like an LLC.

There are costs associated with an LLC, but this is will prevent a judgment against a property from touching your core assets.



Equity Stripping

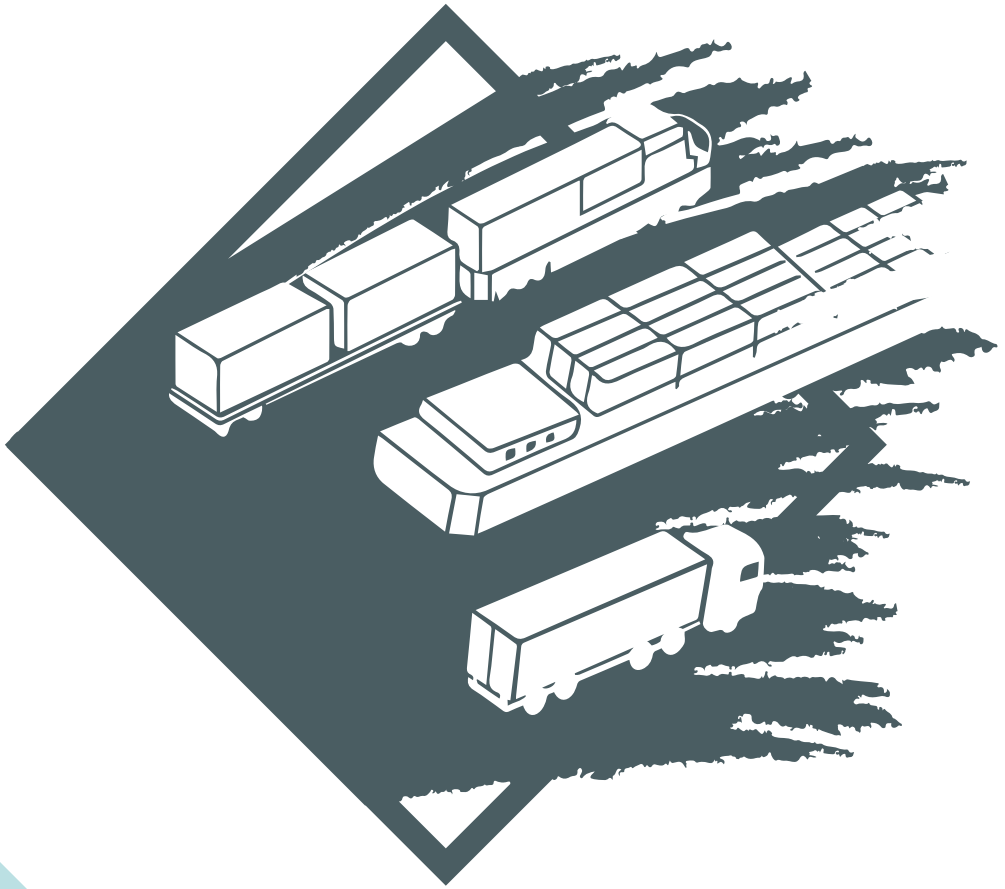
Equity Stripping *is useful in states with weak Homestead Laws.*

You take a credit line against a house, move that money to something more protected, and reduce home equity.

It makes a property less desirable for creditors.

Both interest rates and tax complications for this type of loan can be high.

Self Incorporation



If you run a business, an LLC or S-Corp is critical to help you deduct business expenses.

That's outside the scope of this lecture, but you can also incorporate yourself as a doctor.

This does not reduce malpractice liability.

But it can reduce taxes on your income.
There's some caveats to that, though...

S-Corporations

LLCs are Pass Through meaning on income (salary) paid to you, you pay taxes normally.

S-Corps are "Small Business Corporations." You can divide your income into salary and dividends in an S-Corp.

Your salary pays Medicare/Soc Sec tax. Your dividends don't.

However, the IRS says "salary" must be at least reasonable compensation.

This is a grey area, but is probably about 60% of your normal salary.

S-Corp Savings

How much taxes do you really save?

60% of 300k is 180k.
120k is then not subject to medicare taxes.

For employer + employee portion, that 120k would normally pay $3500 in medicare tax.

In this case you save $3500 minus the annual costs of maintaining the S-Corp.

Asset Protection Trusts

Trusts *are arrangements that allows a trustee to hold & distribute assets for a beneficiary.*

Asset Protection Trusts *let you be both the trustee and beneficiary. You give up legal ownership but still have distribution control.*

Because you don't have legal ownership, the trust isn't available to creditors.

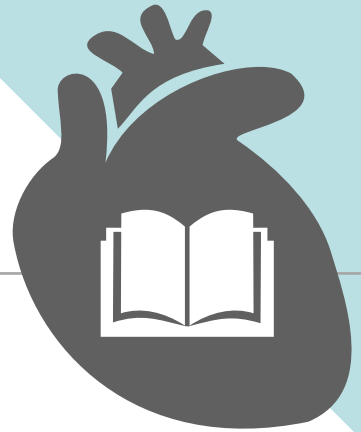
Most states don't allow these and many lawyers don't trust them to work.

Do I need any of this?

If you don't have assets to protect when you're resident or new attending, then no.

When you start to amass a high net worth, you should consider basic protection.

At that point, seek advice from a lawyer. Many of these options are complicated and costly.



References

Where to do your own research

Starting Out

These are good reads for anyone beginning to improve their financial knowledge.

The White Coat Investor's Financial Boot Camp
James M. Dahl, MD

The Physician Philosopher's Guide to Personal Finance
James Turner, MD

The Automatic Millionaire
David Bach

The Coffeehouse Investor
Bill Schultheis

These websites will help you.

WhiteCoatInvestor.com

PhysicianOnFire.com

TheBalance.com

Advanced Readers

If you really want to manage your own finances and investments:

The Boglehead's Guide to Investing
Larimore, Lindauer, LaBoeuf, & Bogle

The Investor's Manifesto
William Bernstein, MD

What Every Real Estate Investor Needs To Know About Cash Flow
Frank Gallinelli

The End

If you have any questions, feel free to contact me at:

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JSBMDE@gmail.com

EMORY UNIVERSITY SCHOOL OF MEDICINE | Department of Anesthesiology

Advanced Directives in the OR: To be, or not to be, resuscitated, is that the question?

Ravi Pathak, MD
Michele Sumler, MD

Notes

- No conflicts of interest
- DNR orders can raise several sensitive ethical, legal, and clinical issues – this discussion today cannot cover them all and is not to be instructive about what actions to take, but rather to explore the nuances, offer helpful suggestions, and foster constructive dialogue
- For the purposes of this talk we will talk about goals of care and code status, they are not synonymous
- This is not legal advice
- Thank you Kevin Wack, JD from Emory Ethics team

Objectives

At the conclusion of this lecture, participants will be able to:

- To review the ethical principles that guide patient care and code status discussion in the perioperative period
- To explain the history of DNR orders in the United States
- To discuss the guidelines on how to approach advanced directives in the perioperative period
- To formulate a framework on how to discuss patient goals and values in the perioperative period

Case

- 92-year-old man presenting for hemicolectomy in the setting of newly diagnosed metastatic colon cancer
  - Prostate cancer, s/p seed implant 2003
  - Obstructive lung disease from COPD/bronchiectasis on home O2
  - Restrictive lung disease from severe kyphosis
  - CKD stage IV, GFR in 20s
  - Functional capacity <4 Mets, ambulates w/ walker, can only walk 5-10ft before short of breath
  - Advanced age with frailty, BMI 15, cachectic, sarcopenia

Case

- Note from pulmonologist “Based on his age and general condition he is at a high risk for post-operative complications including respiratory infection and delayed weaning from ventilator (ARISCAT score = 50).”

OR

(B) [redacted] *(Initials)* **Allow my natural death to occur. I do not want any medications, machines, or other medical procedures that in reasonable medical judgment could keep me alive but cannot cure me. I do not want to receive nutrition or fluids by tube or other medical means except as needed to provide pain medication.**

OR

ACS NSQIP® Surgical Risk Calculator

AMERICAN COLLEGE OF SURGEONS
Inspiring Quality: Highest Standards, Better Outcomes

Procedure: 44143 - Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type procedure)

Risk Factors: 85 years or older, Male, Partially dependent functional status, ASA Severe systemic disease, Disseminated cancer, HTN, Dyspnea with moderate exertion, COPD, Acute renal failure, Under Weight

Note: Your Risk has been rounded to one decimal point.

Outcomes	Your Risk	Average Risk	Chance of Outcome
Serious Complication	44.7%	26.9%	Above Average
Any Complication	53.0%	35.3%	Above Average
Pneumonia	23.8%	5.4%	Above Average
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Surgical Site Infection	9.9%	8.9%	Above Average
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Venous Thromboembolism	7.5%	3.9%	Above Average
Renal Failure	This outcome is inapplicable to patients with pre-op renal failure or dialysis.		
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Discharge to Nursing or Rehab Facility	82.5%	31.1%	Above Average
Sepsis	20.6%	3.3%	Above Average

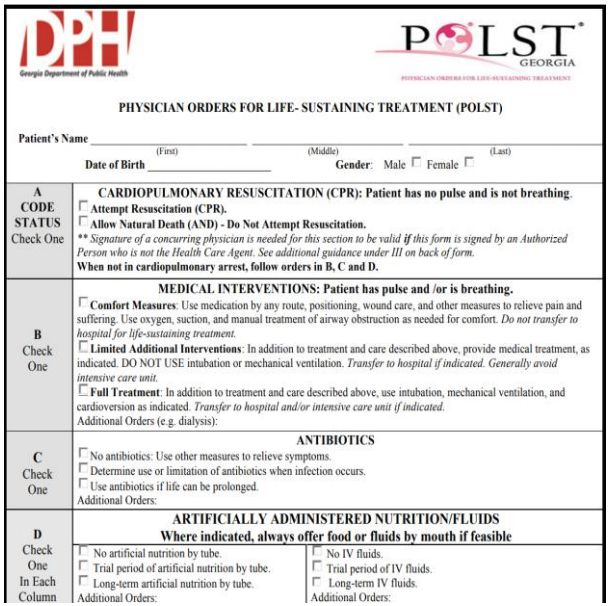
Predicted Length of Hospital Stay: 17.5 days

A look into the past…

- 1956:
  - Dr. Safar (anesthesiologist) demonstrates that mouth to mouth resuscitation is a lifesaving intervention
  - Dr. Zoll successfully defibrillates a heart
- 1960:
  - Dr. Safar and Dr. Jude combine mouth to mouth resuscitation with chest compressions and defibrillation to create CPR
  - AHA starts a campaign to acquaint all physicians with CPR
- 1974:
  - AMA proposes that decisions not to resuscitate be formally documented in the chart and communicated to all staff
- 1976:
  - Quinlan case – First landmark case around litigation involving DNR and the “right to die”
- 1980s:
  - New York first state to introduce laws regarding resuscitation
  - JCAHO requires formal policies regarding DNR orders for reaccreditation

A look into the past…

- 1991:
  - POLST (physician orders for life sustaining therapies)
- 1993:
  - ASA publishes ethical guidelines regarding DNR in the OR
- 1994:
  - ACS publishes position statement regarding DNR in the OR
- 2007:
  - POLST form legally recognized in Georgia



DPH Georgia Department of Public Health

POLST GEORGIA

PHYSICIAN ORDERS FOR LIFE-SUSTAINING TREATMENT

PHYSICIAN ORDERS FOR LIFE- SUSTAINING TREATMENT (POLST)

Patient's Name _____ _____ _____
(First) (Middle) (Last)

Date of Birth _____ **Gender:** Male ☐ Female ☐

A CODE STATUS Check One	**CARDIOPULMONARY RESUSCITATION (CPR): Patient has no pulse and is not breathing.** ☐ **Attempt Resuscitation (CPR).** ☐ **Allow Natural Death (AND) - Do Not Attempt Resuscitation.** ** *Signature of a concurring physician is needed for this section to be valid if this form is signed by an Authorized Person who is not the Health Care Agent. See additional guidance under III on back of form.* **When not in cardiopulmonary arrest, follow orders in B, C and D.**
B Check One	**MEDICAL INTERVENTIONS: Patient has pulse and /or is breathing.** ☐ **Comfort Measures**: Use medication by any route, positioning, wound care, and other measures to relieve pain and suffering. Use oxygen, suction, and manual treatment of airway obstruction as needed for comfort. *Do not transfer to hospital for life-sustaining treatment.* ☐ **Limited Additional Interventions**: In addition to treatment and care described above, provide medical treatment, as indicated. DO NOT USE intubation or mechanical ventilation. *Transfer to hospital if indicated. Generally avoid intensive care unit.* ☐ **Full Treatment**: In addition to treatment and care described above, use intubation, mechanical ventilation, and cardioversion as indicated. *Transfer to hospital and/or intensive care unit if indicated.* Additional Orders (e.g. dialysis):
C Check One	**ANTIBIOTICS** ☐ No antibiotics: Use other measures to relieve symptoms. ☐ Determine use or limitation of antibiotics when infection occurs. ☐ Use antibiotics if life can be prolonged. Additional Orders:
D Check One In Each Column	**ARTIFICIALLY ADMINISTERED NUTRITION/FLUIDS** **Where indicated, always offer food or fluids by mouth if feasible** ☐ No artificial nutrition by tube. ☐ Trial period of artificial nutrition by tube. ☐ Long-term artificial nutrition by tube. Additional Orders: ☐ No IV fluids. ☐ Trial period of IV fluids. ☐ Long-term IV fluids. Additional Orders:

Why is this important?

- Balance competing ethical principles and goals including patient autonomy
- aging population
- patient safety
- often lead resuscitation efforts
- major implications for our patients as well as other clinical teams

Patient Self-Determination Act (PSDA)

- 1991
- Result of Cruzan case
- Addressed concerns of authoritarianism and paternalism in medicine
- Requires that patients receiving medical care in federally reimbursed facilities be informed of their rights under state law to consent to and refuse medical therapy

Patient Self-Determination Act (PSDA)

- Notable in that it really focuses on a patient's right to refuse medical treatment, including life sustaining therapy

- Recognizes that without the opportunity for informed refusal, there can be no informed consent

Autonomy

- Right to self determination
- Basis for informed consent
- Right to refuse treatment as well (Jehovah's witness)

Autonomy

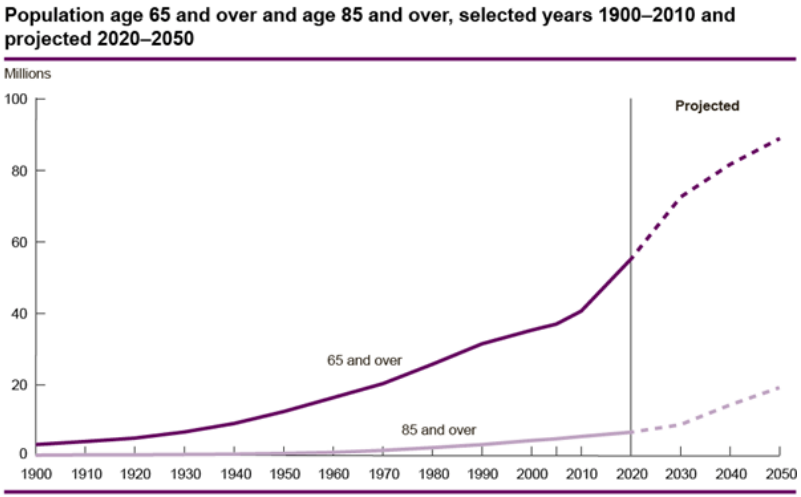
- Patients who are DNR still want/need surgery
  - Palliation
  - hoping to improve quality of life
  - hoping to increase time/longevity

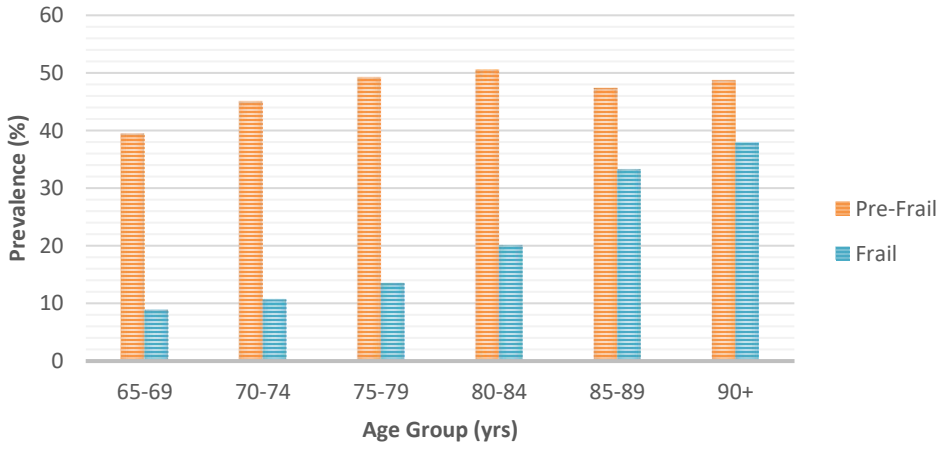
Autonomy

- Do Not Resuscitate
  - The legal definition of resuscitation
  - When the heart stops and/or breathing stops
  - **Does not include** a declining patient that may be deteriorating over days or hours

Medical Challenges

- It is estimated that 15% of patients who have surgery have DNR orders
  - The prevalence of DNR patients is to likely increase as our population ages





Non-maleficence

- Guiding principle for physicians
- *“Do no harm”*

Non-maleficence

- Is routine anesthesia care resuscitation?
- Cardiac Arrest:
  - Natural Progression of underlying diseases vs. Iatrogenic causes of instability
- Effects of anesthetic interventions can result in severe hemodynamic instability or cardiac arrest

DNR and Mortality

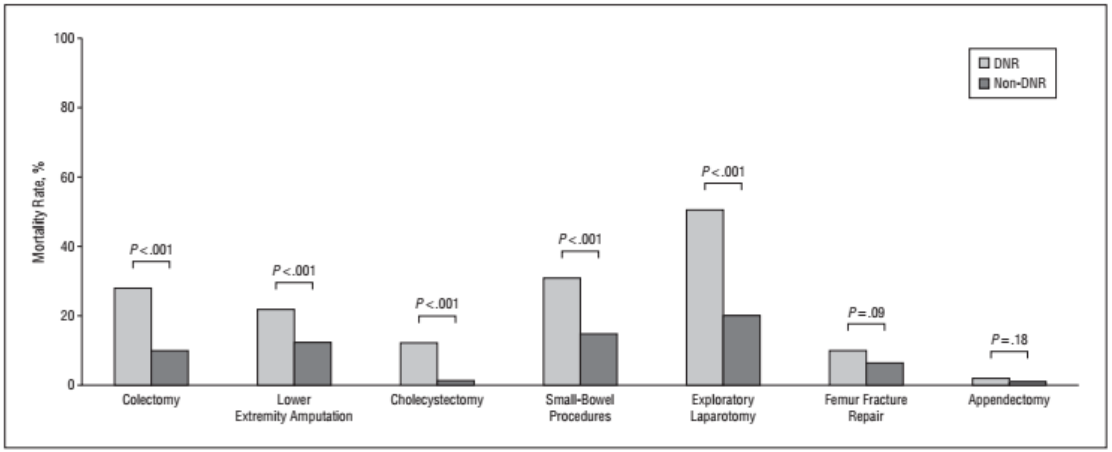


Figure 1. Unadjusted mortality rates of do-not-resuscitate (DNR) and non-DNR patients by procedure, American College of Surgeons National Surgical Quality Improvement Program (2005-2008). Procedures were done in 2% or more of study sample (decreasing frequency from left to right of x-axis).

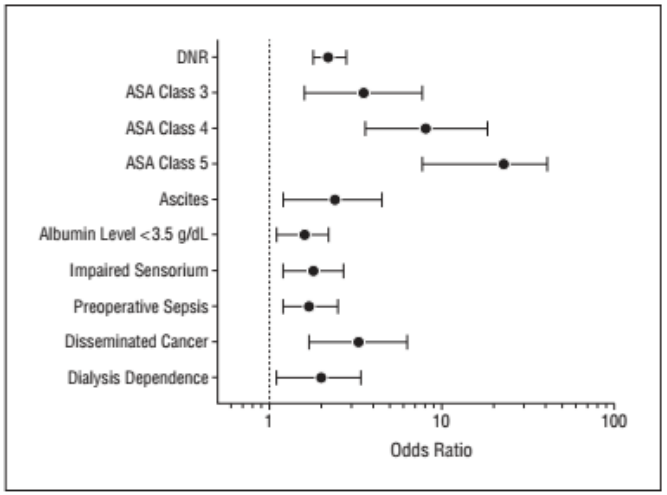


Figure 3. Multivariate analysis of independent predictors of mortality, American College of Surgeons National Surgical Quality Improvement Program (2005-2008). Multivariate logistic regression model adjusted for more than 30 risk factors. The x-axis is in logarithmic scale. ASA indicates American Society of Anesthesiologists; DNR, do-not-resuscitate. To convert albumin to grams per liter, multiply by 10.

Arch Surg. 2011;146(8):922–928. doi:10.1001/archsurg.2011.69

Beneficence

- Motivates one to do good while removing harm
- Can create conflict as a result of perspective/interpretation of situation
- Ex. Use of vasopressors

Beneficence

- CPR outcomes in the OR
  - Out of hospital arrests generally have low success rates (10-15%)
  - In hospital arrest success rates are 15-25%
  - Meta-analysis of perioperative CPR showed that
    - Survival was 32% to 55.7% at 24 hours
    - 45% to 67% of patients had neurologically favorable outcomes at discharge

Kalkman et al Anesthesiology 2016; 124:723–729

Justice

- Balance resources to allow the most to benefit
- Fair and equitable
- Ex. COVID-19 pandemic

Other Challenges

- Who is responsible for having the difficult conversation with the patient and/or surrogates?
- What happens if a member of the perioperative team is uncomfortable with the patient's goals and/or code status?

What do patients prefer?

Table 1 Patient responses to a series of general statements

	Agree		Neither agree or disagree	Disagree	
	Strongly	Some-what		Some-what	Strongly
Preoperative DNR requests should be suspended for surgical procedures	131 (32%)	104 (25%)	62 (15%)	40 (10%)	58 (14%)
Requests not to be resuscitated should always be discussed between patient and surgeon or anesthesiologist	309 (74%)	74 (18%)	17 (4%)	5 (1%)	4 (<1%)
Decisions about intraoperative resuscitation should be left up to surgeons and anesthesiologists alone because patients cannot fully understand the complexities involved with a surgical process	87 (21%)	94 (23%)	28 (7%)	54 (13%)	137 (33%)
The type of surgical procedure should influence whether a patient's request not to be resuscitated is followed	113 (28%)	115 (28%)	61 (15%)	32 (8%)	75 (18%)
If a patient's request to forgo resuscitation is suspended for a surgical procedure, it should be reinstated at a predetermined point following anesthesia recovery.	206 (50%)	120 (29%)	50 (12%)	10 (2%)	8 (2%)

Burkle et al. BMC Anesthesiology 2013

Anesthesiologists approach to DNR

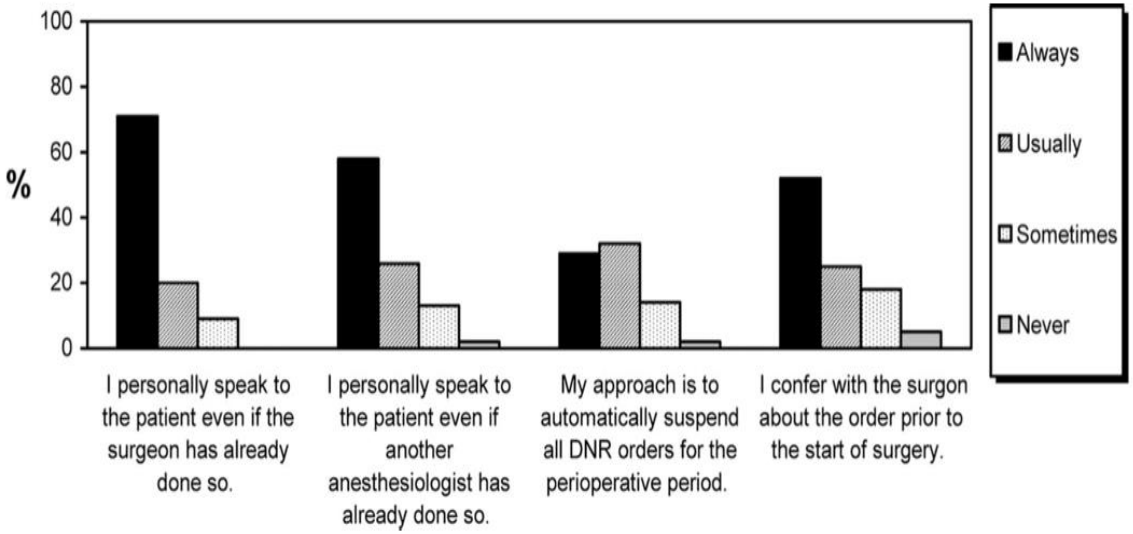


Figure 1. Survey responses of all subjects (n = 132) when asked about their current clinical practices regarding perioperative DNR. Data indicate that a significant number of anesthesiologists do not follow the American Society of Anesthesiologists guidelines.

Sim Healthcare 4:70–76, 2009

Anesthesiologist and Surgeon Behavior

- Survey study in 2013 of anesthesiologists and surgeons
  - 18% of anesthesiologists and 38% of surgeons assumed automatic suspension of DNR
- 2014 survey of surgeons
  - 69% of CT surgeons, 56% of vascular surgeons, and 57% of neurosurgeons would decline to perform an elective procedure for a patient who wanted to limit resuscitation intraoperative or postoperatively

Burkle et al. BMC Anesthesiology 2013
Schwarze et al. *Crit Care Med*. 2013;41(1):1-8

ASA Guidelines

- Policies automatically suspending DNR orders may not sufficiently address a patient's rights to self-determination in a responsible and ethical manner.

- The administration of anesthesia necessarily involves some practices and procedures that might be viewed as "resuscitation" in other settings. Prior to procedures requiring anesthetic care, any existing directives should, when possible, be reviewed with the patient or designated surrogate

Full Attempt at Resuscitation

- Full Attempt at Resuscitation: Full suspension of existing directives during the anesthetic and immediate postoperative period

- Remember if you change to full attempt to resuscitation, it is important to talk about if/when it would be appropriate to reverse code status back to DNR

Limited Attempt at Resuscitation Defined With Regard to Specific Procedures

- The patient or designated surrogate may elect to continue to refuse certain specific resuscitation procedures (for example, chest compressions, defibrillation, or tracheal intubation).

- The anesthesiologist should inform the patient or designated surrogate about which procedures are:
  - (1) essential to the success of the anesthesia and the proposed procedure
  - (2) which procedures are not essential and may be refused.

Limited Attempt at Resuscitation Defined With Regard to Specific Procedures

After careful review of this form and discussion with the anesthesia provider, patient should check the box under "A," and check one option under "B."

A. ☐ I have discussed and reconsidered my current Do Not Resuscitate, hereinafter referred to as ("DNR") status with my physicians and how this may affect my surgical procedure and anesthesia. I am aware of the new risks that are likely to result from the surgical procedure, the anesthesia, as well as from resuscitative measures. These additional risks include:_____

B. Resuscitation:

☐ I wish to have a full DNR status throughout the course of the anesthetic and the post-anesthetic period.

☐ I wish to discontinue my DNR status throughout the course of the anesthetic and the post-anesthetic period. This means that full resuscitative efforts will be made, if necessary.

☐ I consent to limited resuscitation during my anesthetic and post-anesthetic course, according to my preferences listed below:

☐ Yes ☐ No Someone assists my breathing
☐ Yes ☐ No Place a tube in my throat and a machine assists my breathing
☐ Yes ☐ No Place drainage tubes in my chest
☐ Yes ☐ No Chest compressions
☐ Yes ☐ No Open chest and squeeze my heart
☐ Yes ☐ No Shock my heart
☐ Yes ☐ No Place a pace maker to help my heart pump
☐ Yes ☐ No Medications to help my heart and blood pressure
☐ Yes ☐ No Give fluids
☐ Yes ☐ No Give blood/blood products
☐ Yes ☐ No Place special lines into arteries/veins
☐ Yes ☐ No Medications to restore breathing
☐ Yes ☐ No Transfer to an ICU post-operatively
☐ Yes ☐ No Support my breathing post-operatively (time limit: ___)

Limited Attempt at Resuscitation Defined With Regard to Patient's Goals and Values

- Anesthesiologist/surgical/procedural team to use clinical judgment in determining which resuscitation procedures are appropriate in the context of the situation and the patient's stated goals and values.
- Some patients may want full resuscitation procedures:
  - To be used to manage adverse clinical events that are believed to be quickly and easily reversible
  - But to refrain from treatment for conditions that are likely to result in permanent sequelae
    - neurologic impairment
    - unwanted dependence upon life-sustaining technology

To be, or not to be resuscitated, is that the question?

- Ask-Tell-Ask
  - 1st Ask:
    - What have your surgeons/proceduralists explained to you about surgery?
    - What are you hoping the surgery will help you accomplish?
    - What is your understanding of the risks of the surgery?
    - I see that you have a DNR order, can we talk about that? What worries do you have about CPR?

To be, or not to be resuscitated, is that the question?

ACS NSQIP® Surgical Risk Calculator

American College of Surgeons
Inspiring Quality: Highest Standards, Better Outcomes

Procedure: 44143 - Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type procedure)

Risk Factors: 85 years or older, Male, Partially dependent functional status, ASA Severe systemic disease, Disseminated cancer, HTN, Dyspnea with moderate exertion, COPD, Acute renal failure, Under Weight

Note: Your Risk has been rounded to one decimal point.

Outcomes	Your Risk	Average Risk	Chance of Outcome
Serious Complication	44.7%	26.9%	Above Average
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Discharge to Nursing or Rehab Facility	82.5%	31.1%	Above Average
Sepsis	20.6%	3.3%	Above Average

Predicted Length of Hospital Stay: 17.5 days

- Next Tell
  - Can I talk to you about what I am worried about?
  - Best case/worst case/most likely case
    - Best Case- everything goes well
    - Worst Case- you become sick during the surgery or afterwards, may need prolonged ICU care, prolonged dependence on machines, and you may even die
    - Likely scenario- even if you do well after surgery, I am worried that you will have a prolonged hospital course and you will most likely need to be discharged to a nursing home or rehab

To be, or not to be resuscitated, is that the question?

- Ask
  - Exploring the patient's goals and values
    - What are you hoping for?
    - What makes your life worth living?
    - What are you afraid of?
    - What is your life like now?
    - What is an unacceptable quality of life for you?
      - Are there things you want to avoid?
    - Have you spoken to your family/surrogate about your goals?

Back to the Case

- "Dad is having pain and nausea from the cancer. We are hoping that the surgery will help decrease pain and allow him to eat the things he likes to eat."
- "Dad is afraid of pain and suffering."
- "Dad does not want to be on machines indefinitely."
- "Despite Dad's age he is somewhat independent. He hates the idea of becoming more dependent."
- "Dad is not trying to win the award for oldest man alive, if things do not go well, he has voiced he is ready to die."
- "We know this surgery is high risk, but we feel that it is our only shot."

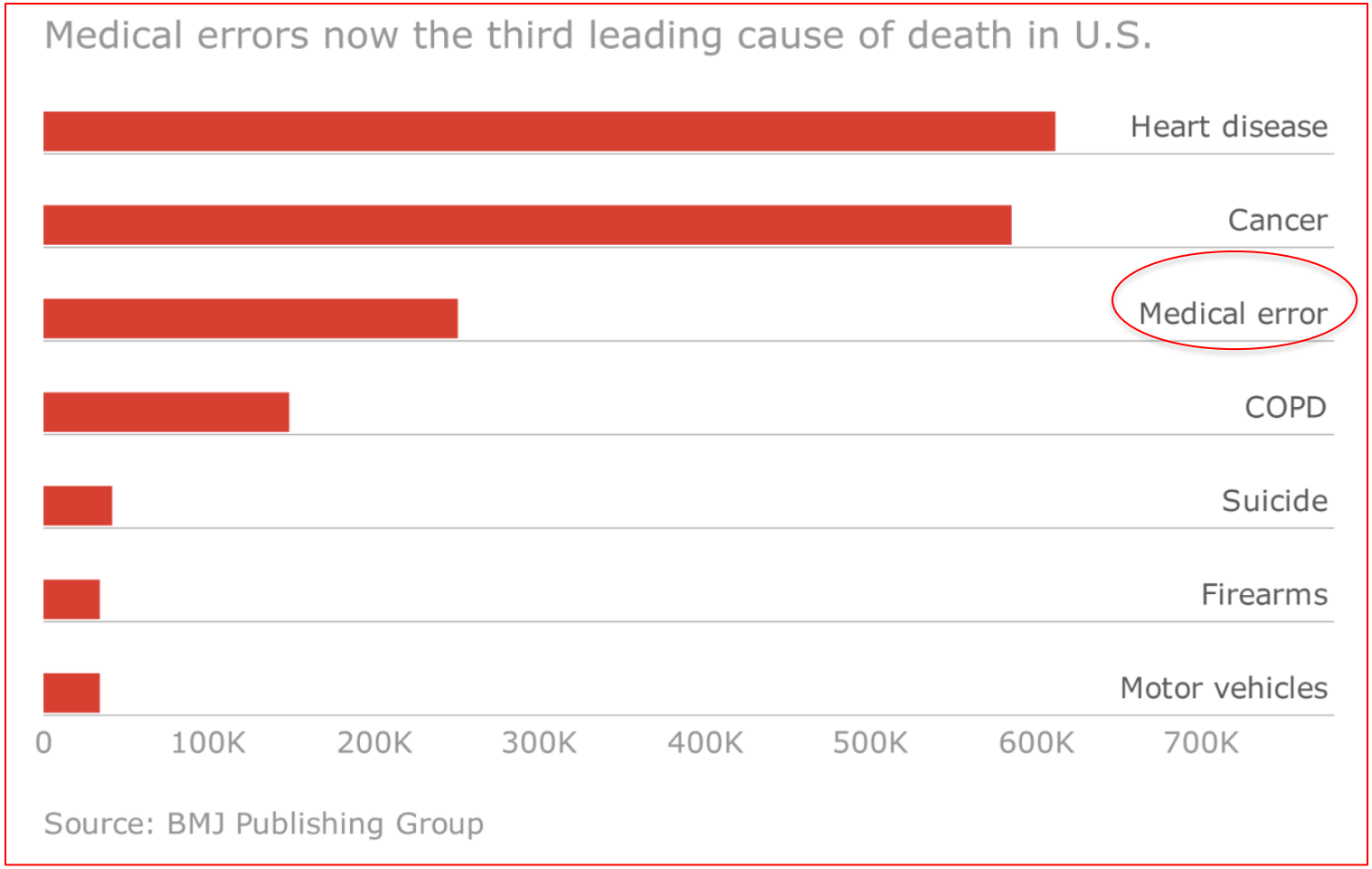
Back to the Case

- We decided to proceed with limited attempt at resuscitation with respect to patient's values for the perioperative period
- Set expectations that patient may be on the ventilator for some time after the surgery
- Clearly defined do not proceed to tracheostomy, PEG tube, or long-term dialysis
- We would treat the patient in the operating room including CPR as long as surgeon and I agreed that his goals could still be met
- If we felt that his goals could no longer be met, we would call daughter and stop CPR

Provider Autonomy

When an anesthesiologist finds the **patient's or surgeon's limitations of intervention decisions to be irreconcilable with one's own moral views, then the anesthesiologist should withdraw in a nonjudgmental fashion,** providing an alternative for care in a timely fashion

If these alternatives are not feasible within the time frame necessary to prevent further morbidity or suffering, then in accordance with the American Medical Association's Principles of Medical Ethics, care should proceed with reasonable adherence to the patient's directives, being mindful of the patient's goals and values.

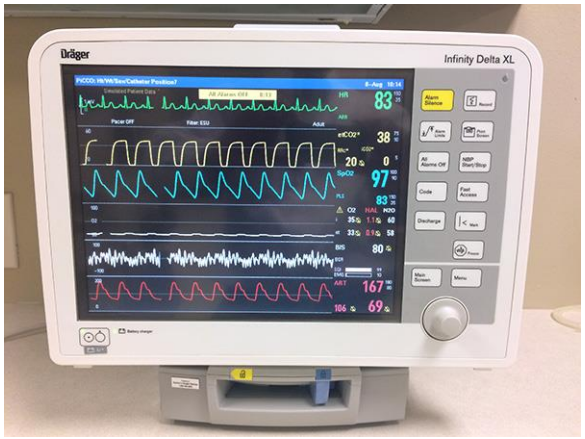

Medical errors now the third leading cause of death in U.S.
Heart disease
Cancer
Medical error
COPD
Suicide
Firearms
Motor vehicles
0
100K
200K
300K
400K
500K
600K
700K
Source: BMJ Publishing Group

TOP FIVE MOST COMMON TYPES OF MEDICAL ERRORS:

*Iowa Patient Safety Study: Iowans' Views on Medical Errors ©2017
Heartland Health Research Institute | HHRI.net

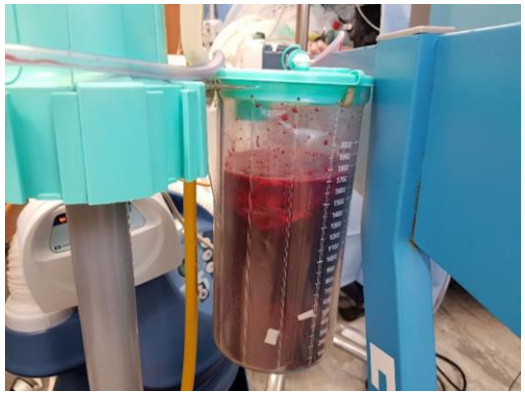
Iatrogenic vs. Natural Progression of Disease

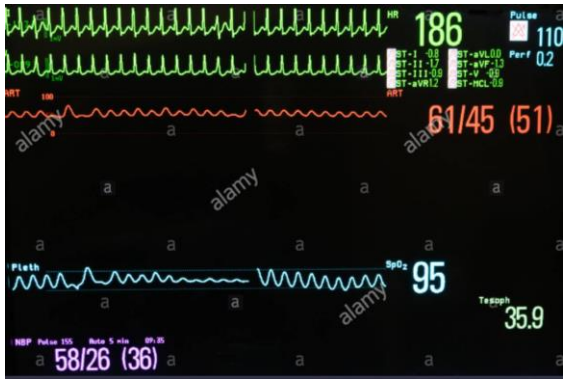
- It is 1 hour into the surgery, and everything is going well.



Iatrogenic vs. Natural Progression of Disease

- Suddenly you hear the surgeon suctioning continuously

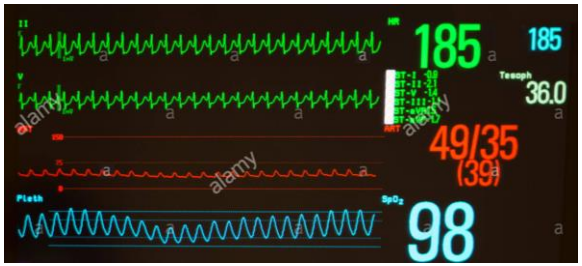




- There is splenic bleeding when removing the mass/colon from the splenic flexure
- Do you resuscitate?

Iatrogenic vs. Natural Progression of Disease

- Despite aggressive volume resuscitation, transfusions, and vasopressor support tachycardia and hypotension are persistent



- The patient now proceeds to go into PEA arrest
- Do you initiate ACLS?

Iatrogenic vs. Natural Progression of Disease

- After 2 rounds of ACLS, surgical control of bleeding, and further volume resusictation you achieve return of spontaneous circulation
- However, you look at your rhythm strip and see:

- Do you take this patient to the cath lab?

- 285 physicians surveyed
- Iatrogenic error
- 69% of the respondents said they favored resuscitation
  - feel uncertain about what the patient would want in such a situation
  - experience a strong impulse to relieve their guilt over the error by providing CPR
  - claim it was in the patient's best interests
  - estimate that it would be legally and morally safer to err on the side of prolonging life

Tips and Suggestions

- Conversations ideally are started upstream
- Look for advanced directive tab on the chart
- Talk to the patients
  - Every patient should be asked as if they have an advanced directives
  - Conversations and guidance should be individualized to patient, procedure, situation
- It is acceptable and encouraged to ask for help!
  - Risk, ethics, and/or palliative care consults may be helpful

Who is authorized to consent to DNR?

Consent to DNR

OCGA §31-39-2

1. Adult Patient
2. Designated Agent
3. Spouse
4. Guardian (for a ward)
5. Adult Child
6. Parent
7. Adult Sibling

Consent to Medical/Surgical Tx

OCGA §31-9-2

1. Adult Patient
2. Designated Agent
3. Spouse
4. Guardian (for a ward)
5. Adult Child
6. Parent
7. Adult Sibling
8. **Grandparent**
9. **Adult Grandchild**
10. **Adult Niece/Nephew; Aunt/Uncle**
11. **Adult Friend**

- Note: If patient lacks capacity, no authorized surrogate is available, suggest Ethics consult

Summary

- Establish goals of care prior to procedure
- DNR should not be automatically suspended before an operation
- Palliative operations can be justified and successful with a standing DNR

Future Directions

- Screening all patients for advanced directives in the preoperative setting
- If they name/have a healthcare agent/surrogate, ensure sure it is someone who they trust
- Communication workshops
  - Our verbal dexterity must be equal to our procedural skills and fund of knowledge
- Simulation with DNR patients and adverse events
- Collaboration with palliative care for the elderly frail and other high-risk groups

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- https://www.asahq.org/~/media/sites/asahq/files/public/resources/standards-guidelines/ethical-guidelines-for-the-anesthesia-care-of-patients.pdf Ethical Guidelines for the Anesthesia Care of Patients with Do-Not-Resuscitate Orders or Other Directives That Limit Treatment
- https://www.facs.org/About-ACS/Statements/19-Advance-Directives Statement on Advance Directives by Patients: "Do Not Resuscitate" in the Operating Room
- Managing do-not-resuscitate orders in the perianesthesia period Kristen K. Guarisco, RN, MN, CRNA DOI:https://doi.org/10.1016/j.jopan.2004.08.002

Governor's Office of PLANNING AND BUDGET
THE STATE OF GEORGIA

Georgia All-Payer Claims Database

APCD Overview

Jon Duke, MD
Georgia Tech Research Institute

Georgia APCD Team

Member Group	Program Role
Office of Health Strategy & Coordination (OHSC)	Mandated to create and implement an All- Payer Claims Database in Georgia
Georgia Tech Research Institute – Center for Health Analytics & Informatics (GTRI-CHAI)	Statutory APCD administrator
Georgia Technology Authority – Technology Empowerment Fund (TEF)	Project assurance
Georgia Data Analytics Center (GDAC)	Analytics environment
Onpoint Health Data (Onpoint)	Data collection partner

Overview of APCDs & Popular Use Cases

What is an APCD?

- All Payer Claims Databases (APCDs) are centralized data repositories for health insurance membership and healthcare claims data from private and public payer sources across a state.
- Their purpose is to improve transparency of cost, quality and utilization of care.
- Once established, an APCD can be used by a state to inform policy discussions and support a wide range of data-oriented projects.

What APCD is **NOT**

- Not an electronic health record
- Not another system requiring data entry from providers
- Not a repository of identifiable individuals
- Not a repository of people that have consumed specific services, such as behavioral/mental health or substance abuse services

How APCDs Work

- Medicaid
- Medicare
- Private Payers

- Eligibility & Enrollment
- Medical Claims
- Pharmacy Claims
- Dental Claims
- Provider Data

➢ De-Identified
➢ Aggregated

Public Use Files

- Consumers
- Employers

Custom Extracts

- Researchers
- Population Health
- Policy

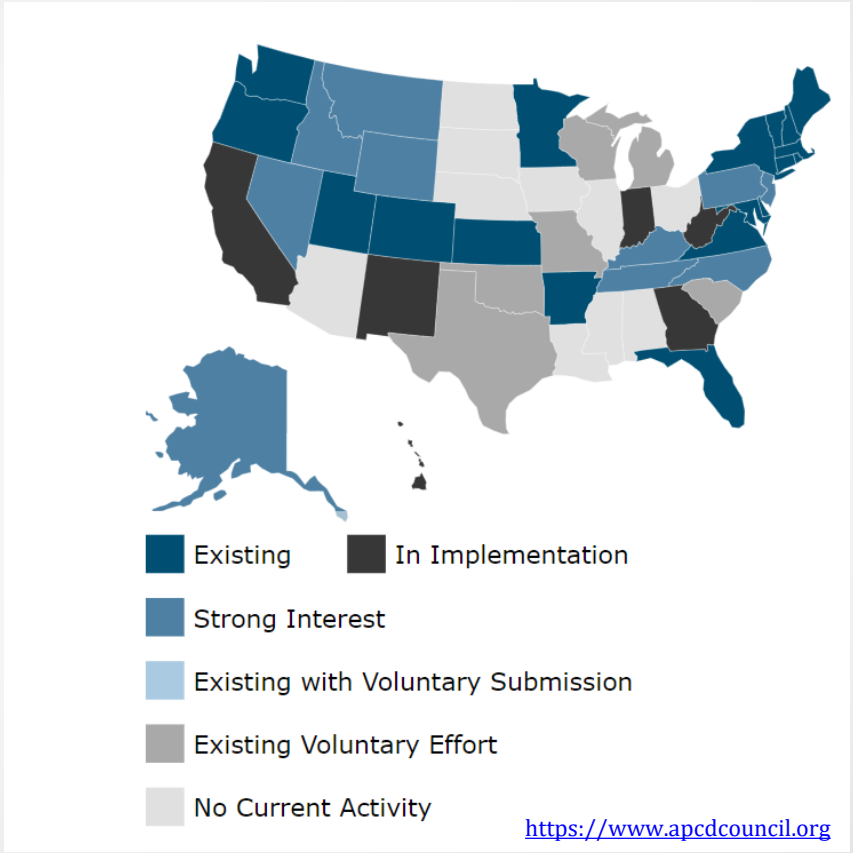
➢ De-Identified Limited Datasets
➢ DUA Required

Types of Data in APCDs

Data Elements Typically *Included* in APCDs	Data Elements Typically *Excluded* from APCDs
• Member ID# or encrypted SSN • Type of product (HMO, POS, indemnity, etc.) • Utilization of services • Diagnosis/ Major Diagnostic Category • Patient demographics • Payer type • DRG codes and national drug codes • Service provider information • Facility type and identifier • Prescribing physician • Charges/reimbursement & member payment • Type of bill and date of payment • Revenue codes • Service dates	• Alternative payment models (APMs) • Services provided to the uninsured • Premium information • Capitation fees • Administrative fees • Back-end settlement amounts • Referrals • Test results from lab work, imaging, etc.

National APCD Efforts

- Currently there are 18 states with active APCDs of some kind
- There are 8 states actively implementing an APCDs right now
- 7 state APCDs are privately administered, though may be publicly funded, through a third, non-governmental party
- The remaining 19 states are administered through a publicly funded governmental arm/agency
- Colorado APCD (http://www.civhc.org/get-data/public-data/) is a good reference model for what Georgia intends to accomplish.



Georgia's APCD

Background: SB482

SB482: Legislation passed in 2020 mandating the establishment of an APCD for the State of Georgia

Goals for the APCD include:

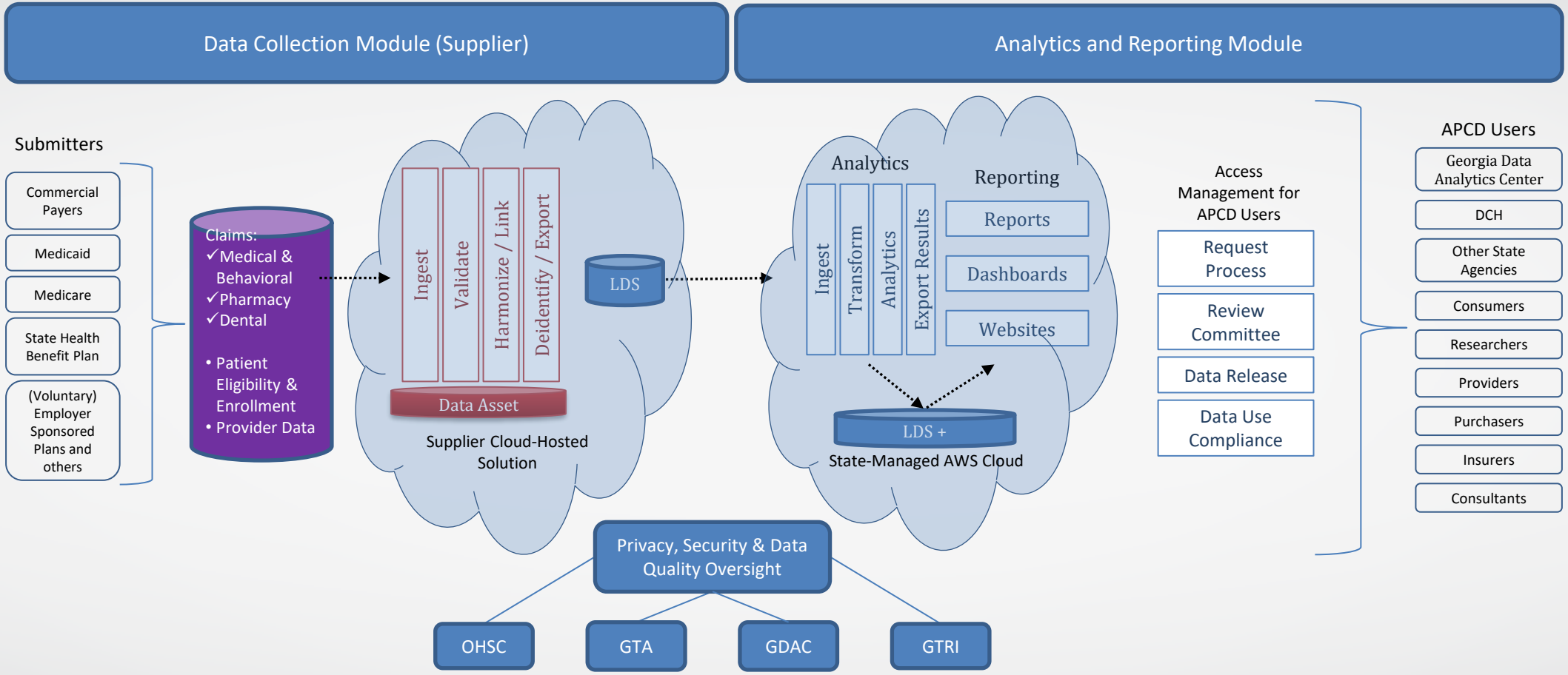
1. Establishing baseline health care cost information;
2. Monitoring and analyzing health care costs;
3. Assessing population health;
4. Measuring utilization of health care services;
5. Identifying health disparities;
6. Informing consumers of cost and quality of health care;
7. Supporting the planning and evaluation of health care operations and care;
8. Improving coordination of care;
9. Enabling oversight of health insurance premium medical loss ratios; and
10. Conducting waste, fraud, and abuse studies.

Entities Required to Submit Claims Data

Many different entities may submit data to the APCD, either voluntarily or through a statutory requirement:

- Insurance companies, medical services plans, hospital plans, hospital medical service corporations, health maintenance organizations, and fraternal benefit societies with at least 1,000 covered lives in the previous calendar year will submit data.
- The Department of Community Health and Medicaid Care Management Organizations, the State Health Benefit Plan, and numerous other agencies are required to submit data.
- Certain entities, such as ERISA plans, are not required to submit data, but they may choose to do so voluntarily.

Georgia APCD Design



OHSC: Office of Health Strategy and Coordination
GTA: Georgia Technology Authority
GDAC: Georgia Data Analytics Center
GTRI: Georgia Tech Research Institute Center for Health Analytics and Informatics
AWS: Amazon Web Services
DCH: Department of Community Health (Georgia Medicaid Agency)

Data Privacy and Security

Ensuring the Security and Privacy of Protected Health Information (PHI) and Personally Identifiable Information (PII) is essential to the APCD and a critical factor in gaining the confidence and support of APCD stakeholders.

There are multiple policies and processes that have been established to ensure best practices and alignment with applicable laws, such as:

- The APCD does not store patient identifiers such as social security number, name, or address.
- Comprehensive data use agreements (DUAs)
- A rigorous data request and review process
- Technical best practices around data encryption, access management, and monitoring

Initially Prioritized Use Case Categories

Cost & Utilization

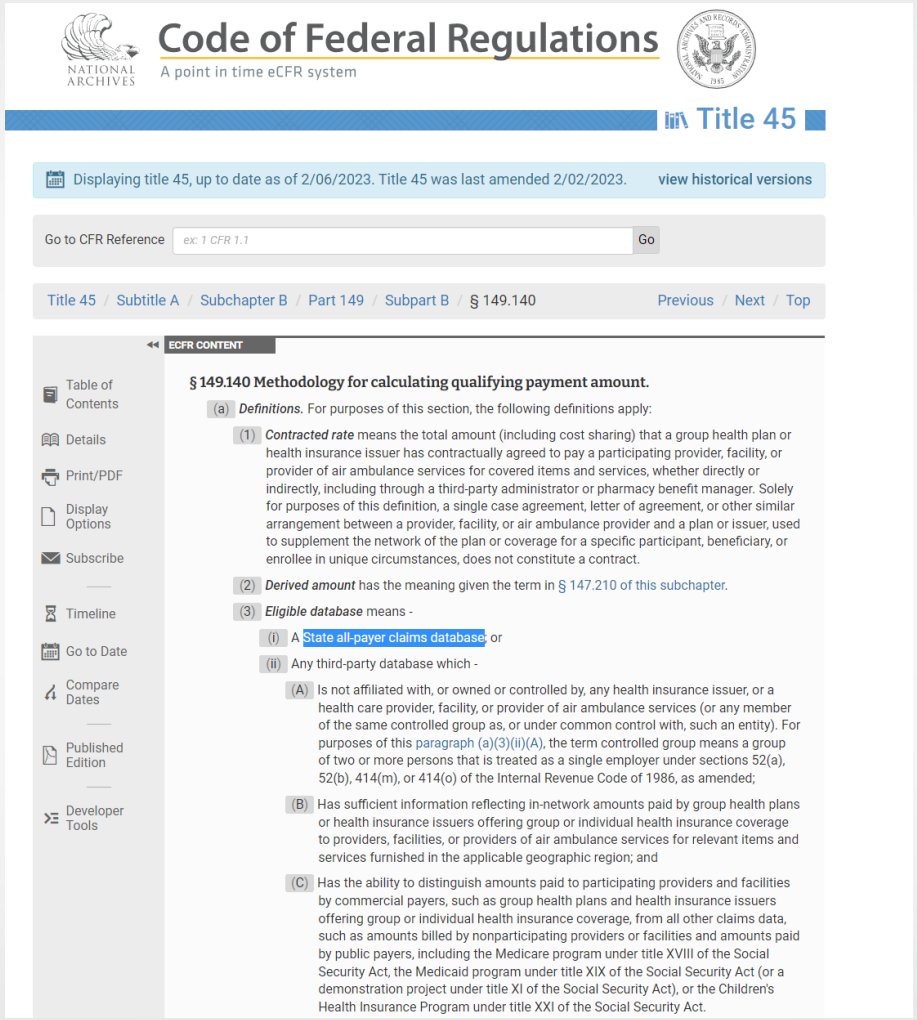
- Total Costs of Care
- Chronic Disease Costs of Care
- Avoidable Costs
- Behavioral Health Costs of Care
- Median Contracted Rates
- Pharmaceutical Costs

Population Health

- Chronic Disease Trends
- Cancer Trends
- Behavioral Health Trends
- Maternal Health

Health Care Quality

- Low-Value Care
- Preventive Screening



Code of Federal Regulations
A point in time eCFR system

Title 45

Displaying title 45, up to date as of 2/06/2023. Title 45 was last amended 2/02/2023. view historical versions

Go to CFR Reference ex: 1 CFR 1.1 Go

Title 45 / Subtitle A / Subchapter B / Part 149 / Subpart B / § 149.140 Previous / Next / Top

ECFR CONTENT

Table of Contents
Details
Print/PDF
Display Options
Subscribe
Timeline
Go to Date
Compare Dates
Published Edition
Developer Tools

§ 149.140 Methodology for calculating qualifying payment amount.

(a) ***Definitions.*** For purposes of this section, the following definitions apply:

(1) ***Contracted rate*** means the total amount (including cost sharing) that a group health plan or health insurance issuer has contractually agreed to pay a participating provider, facility, or provider of air ambulance services for covered items and services, whether directly or indirectly, including through a third-party administrator or pharmacy benefit manager. Solely for purposes of this definition, a single case agreement, letter of agreement, or other similar arrangement between a provider, facility, or air ambulance provider and a plan or issuer, used to supplement the network of the plan or coverage for a specific participant, beneficiary, or enrollee in unique circumstances, does not constitute a contract.

(2) ***Derived amount*** has the meaning given the term in § 147.210 of this subchapter.

(3) ***Eligible database*** means -

(i) A State all-payer claims database; or

(ii) Any third-party database which -

(A) Is not affiliated with, or owned or controlled by, any health insurance issuer, or a health care provider, facility, or provider of air ambulance services (or any member of the same controlled group as, or under common control with, such an entity). For purposes of this paragraph (a)(3)(ii)(A), the term controlled group means a group of two or more persons that is treated as a single employer under sections 52(a), 52(b), 414(m), or 414(o) of the Internal Revenue Code of 1986, as amended;

(B) Has sufficient information reflecting in-network amounts paid by group health plans or health insurance issuers offering group or individual health insurance coverage to providers, facilities, or providers of air ambulance services for relevant items and services furnished in the applicable geographic region; and

(C) Has the ability to distinguish amounts paid to participating providers and facilities by commercial payers, such as group health plans and health insurance issuers offering group or individual health insurance coverage, from all other claims data, such as amounts billed by nonparticipating providers or facilities and amounts paid by public payers, including the Medicare program under title XVIII of the Social Security Act, the Medicaid program under title XIX of the Social Security Act (or a demonstration project under title XI of the Social Security Act), or the Children's Health Insurance Program under title XXI of the Social Security Act.

APCD Key Milestone Dates

Milestone	Target Date
Data Collection Vendor Award	October 24, 2022
Data Submission Guide Distributed	December 21, 2022
APCD portal in production	April 2023
Mandatory Submissions – Health & Pharmacy	June 1, 2023
Mandatory Submissions - Dental	December 1, 2023
Initial Analytic Use Cases	January 2024
Payer Onboarding Completed	June 2025

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Frequently Asked Questions

Question	Answer
Who is driving the rollout of the APCD?	By statute, the APCD is a collaborative effort between the Georgia Office of Health Strategy and Coordination (OHSC) and the Georgia Tech Research Institute – Center for Health Analytics and Informatics (GTRI-CHAI).
Will providers be required to submit data?	No, healthcare claims data will only be submitted by healthcare payers / insurance companies.
Who can request data?	In addition to the datasets which will be available to the public, any entity can request data from the APCD. Every requestor must go through the data request, review, and approval process. We expect to receive requests for data from agencies, research organizations, universities, corporations, and the public.
Will it cost money to get APCD data?	Each quarter, the APCD will publish Public Use Files containing aggregated data which can be used for many types of analysis. These files will be offered free of charge. Requests for specific customized datasets will involve submission of a formal data request, review of that request by a committee, and execution of a data use agreement. A fee will be charged for fulfilling these custom requests.
Does the APCD contain patient names or identifying information?	The APCD does not store patient identifiers such as social security number, name, or address. All patients are de-identified before being loaded into the state's analytic environment. In addition, any attempt to re-identify patients from APCD data is strictly prohibited.
Are all healthcare payers required to submit data to the APCD?	• Submitting entities do not include an entity that provides health insurance or a health benefit plan that is accident-only, specified disease, hospital indemnity, long-term care, disability income, or other supplemental benefit coverage. • ERISA-based self-insured employers can voluntarily submit claims to the APCD.
Is Georgia aligning with national APCD efforts?	Georgia is working closely with the APCD Council, which is convened and coordinated by the Institute for Health Policy and Practice (IHPP) at the University of New Hampshire (UNH) and the National Association of Health Data Organizations (NAHDO).

Thank You!

E-mail Questions/Comments: APCD@OPB.Georgia.gov

The next meeting of the GAPCD Advisory Committee will be Thursday, February 23rd. Please email APCD@OPB.Georgia.Gov if you would like to attend the virtual meeting.

Alpha WOMEN OF Anesthesiology

Basile & Byrd

Basile & Byrd

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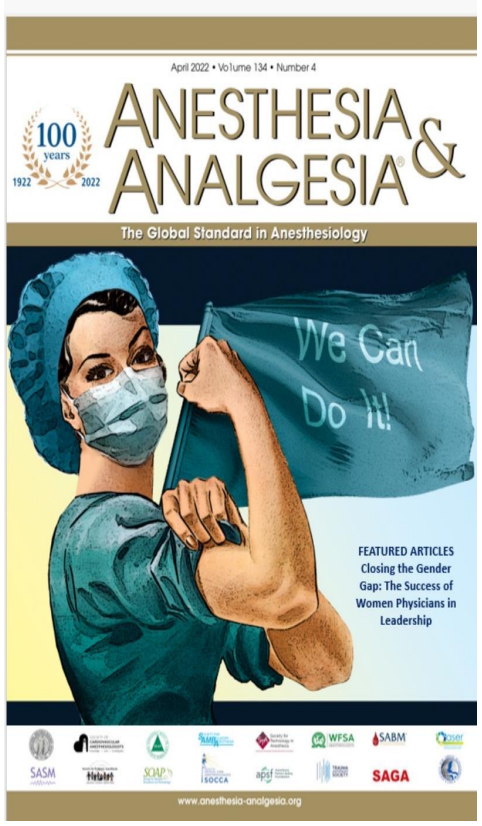
Children's Hospital of Georgia

Disclosures

NONE

Featured Article January 2023 A&A



Anesthesia & Analgesia

ORIGINAL CLINICAL RESEARCH REPORT

Gender Gap: A Qualitative Study of Women and Leadership Acquisition in Anesthesiology

Ellen R. Basile, DO,* Heather Byrd, MD,† Melissa Powell-Williams, PhD,‡ Javier J. Polania Gutierrez, MD,† and Efrain Riveros-Perez, MD, MBA†

BACKGROUND: The representation of women among leaders in the field of anesthesia continues to trail that of their male counterparts. This qualitative study was conducted to understand the pathway of leadership acquisition among women in the field of anesthesiology.

METHODS: Using constructivist grounded theory, we sought to determine whether there were specific internal or external factors that were common to women in leadership in the specialty field of anesthesiology, and specifically, how they obtained leadership positions. Semistructured interviews were conducted for data collection. A total of 26 women in leadership positions in anesthesiology participated in this study.

RESULTS: The analysis of these interviews resulted in the development of 4 common themes related to career pathways for these women in leadership. Each theme was examined in depth to determine the qualities necessary for individuals to advance in the field and the pathway to obtaining leadership positions. The findings of this study showed that early-career, high-value mentorship and sponsorship were important factors in leadership acquisition. Most participants (n = 20; 76%) had early mentors. Of those with early mentorship, 13 (65%) had high-value mentors, who we define as someone with power or authority. Sponsorship was the leading factor contributing to leadership acquisition.

CONCLUSIONS: The results of this qualitative study may serve as a guide for encouraging female anesthesiologists with leadership aspirations. We suggest that the specialty field of anesthesiology institute targeted measures to help increase the percentage of women leadership with formal sponsorship programs at the local and national levels. (Anesth Analg 2022;00:00–00)

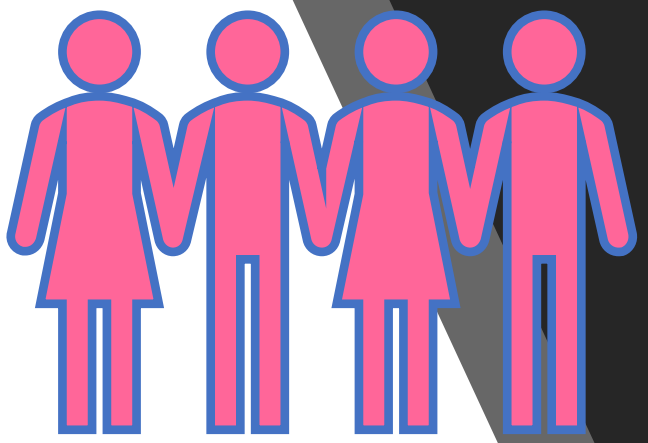
Objectives

1. Review economical and leaders gender gaps in Anesthesiology.

2. Define Qualitative Research, Grounded Constructivist Theory.

3. Understand contributing factors for leadership acquisition for women in Anesthesiology.

GAPS



Pay

Diversity

Leadership

Meet Your 2022 ASA Officers

ASA Monitor February 2022

2023 ASA Officers

FEMALE
19 (15%)

MALE
105 (84%)

Anesthesiology Academic Chairs AAMC 2021

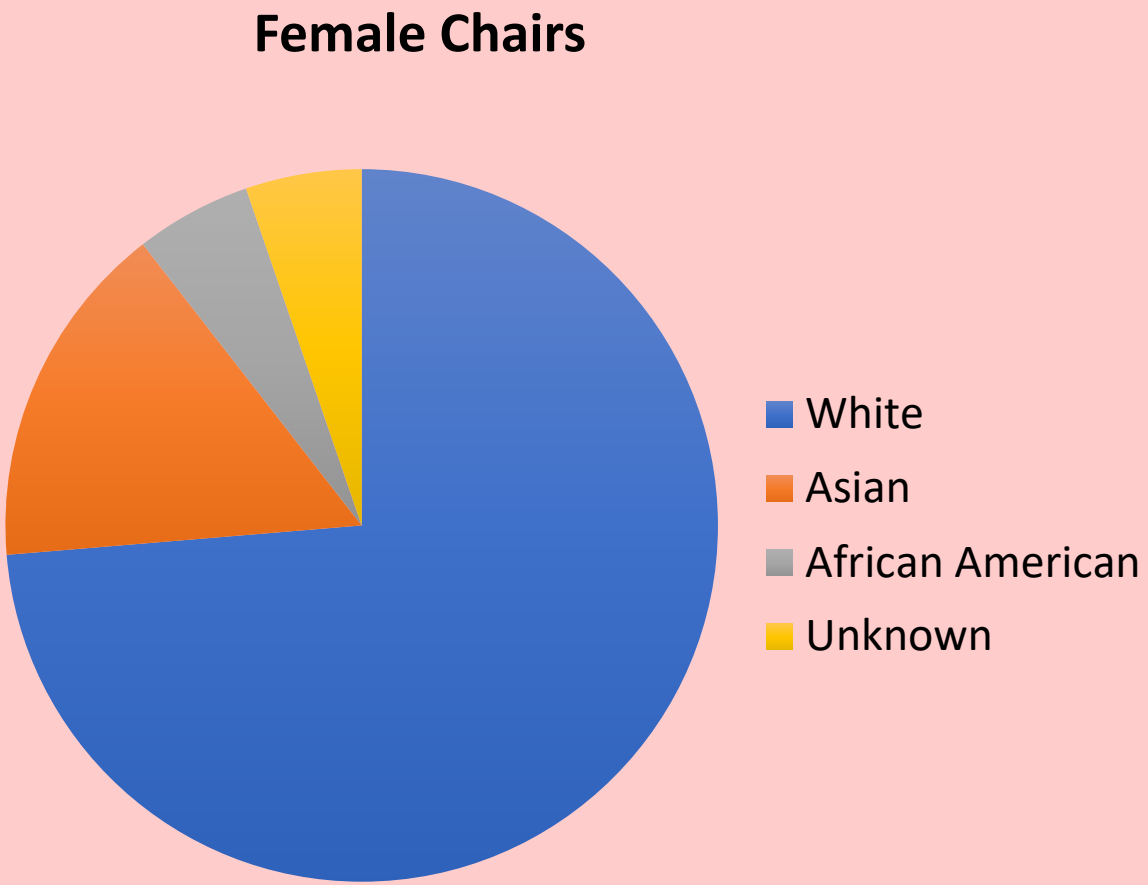
US Women Anesthesiology Chairs Race

14-White

3-Asian

1-African American

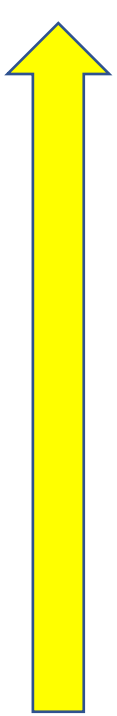
1-Unknown

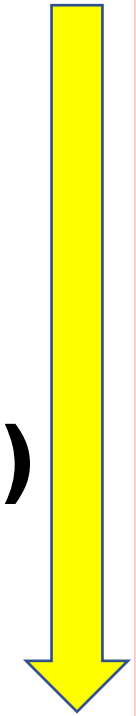


Academic Rank- Anesthesiology

AAMC 2021 Data

RANK	MALE	FEMALE
Professor	1,003 (78%)	283 (22%)
Associate Professor	1,184 (66%)	607 (33%)
Assistant Professor	3,180 (62%)	1,906 (37%)
Instructor	533 (46%)	602 (53%)





US Professors Anesthesiology- Race AAMC 2021

195-White (68.9%)

53-Asian

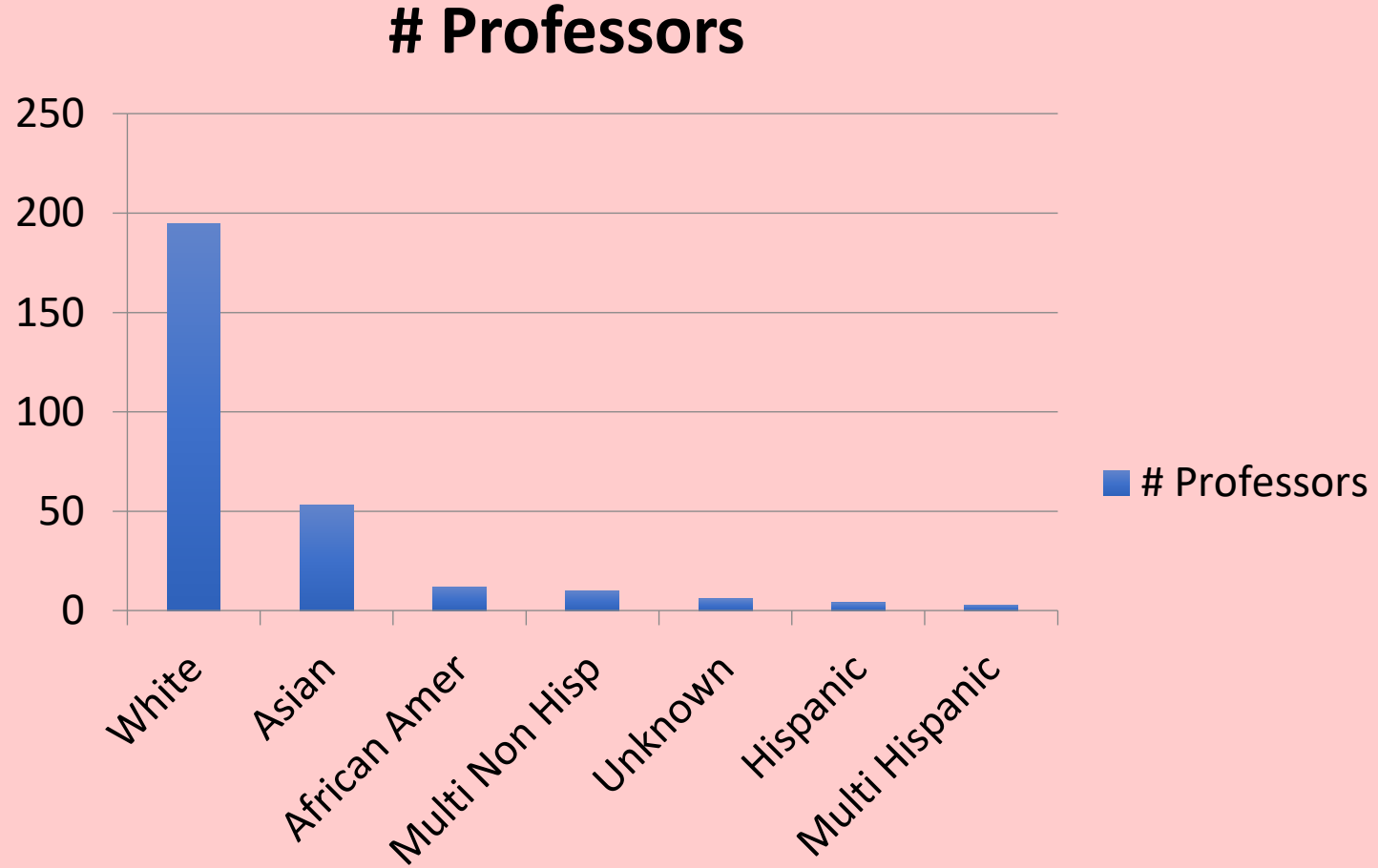
12-African American

10-Multi (non-Hispanic)

6-Unknown

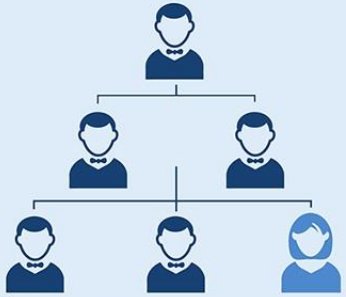
4-Hispanic

3-Multi (Hispanic)



Gender-Based Disparity in Editorial Boards of Anesthesiology Journals

Despite increasing numbers of women anesthesiologists, they remain underrepresented in academic positions

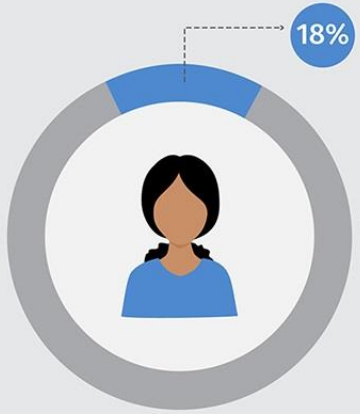


However, the extent to which this discordance is seen across different editorial levels is unknown

What is the proportion of women on the editorial boards of high impact anesthesiology journals?

Comprehensive search for high impact anesthesiology journals

Editorial boards of the top 19 journals were evaluated



Representation of women in all editorial roles

All of the top positions were held by men

17.1% Positions were held by women

17.9% Positions were held by women

20.6% Positions were held by women

Fewer women editorial board members than women anesthesiologists

Increase in women editorial board members

Anesthesia & Analgesia May 2022

McMullen, K., et al.

[illegible] in all editorial roles, particularly leadership roles, may hinder the diversity of authorship and editorial board composition

Representation of women as editors in anesthesiology journals

McMullen *et al.* (2021)

CHAIRS	NUMBER	PERECENT
MALE	68	66.6%
FEMALE	34	33.3%

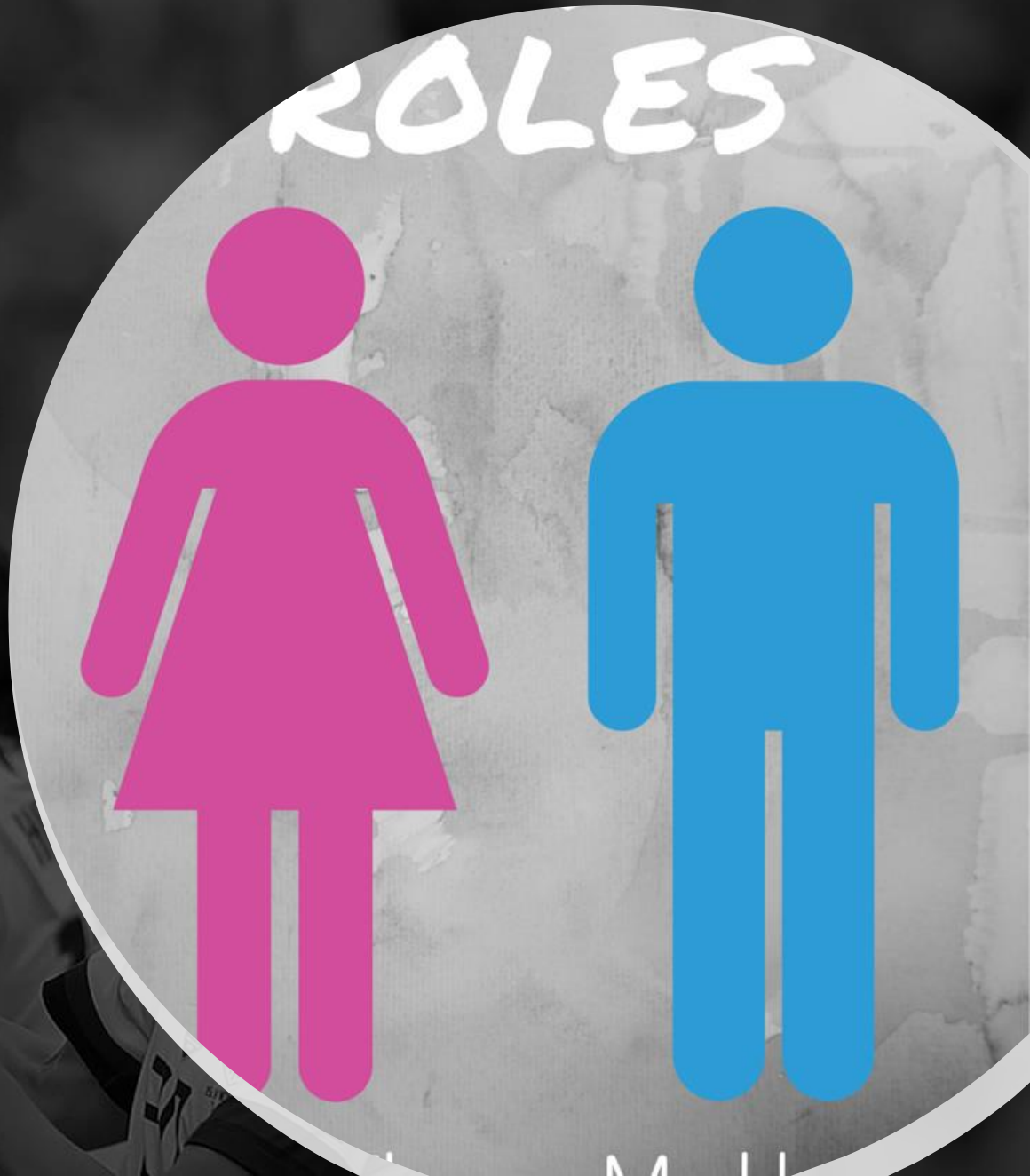
Documentary

Idea?

Qualitative Study

Study of sociological phenomenon

Through personal experiences



QUALITATIVE RESEARCH INDUCTIVE

1ST
- OBSERVATION (HOW DO THEY ACHIEVE LEADERSHIP)

2ND
- DATE COLLECTION

3RD
- DETECT PATTERNS (THEMES)
- TENATIVE HYPOTHESIS

THEORY

Constructivist Ground Theory

Kathy Charmaz, Ph.D.

CGT= Assumed Bias

Melissa Powell-Williams, Ph.D.

Professor of Sociology

Augusta University

Mentor for Qualitative Study

Triangulation

INTERVIEWS

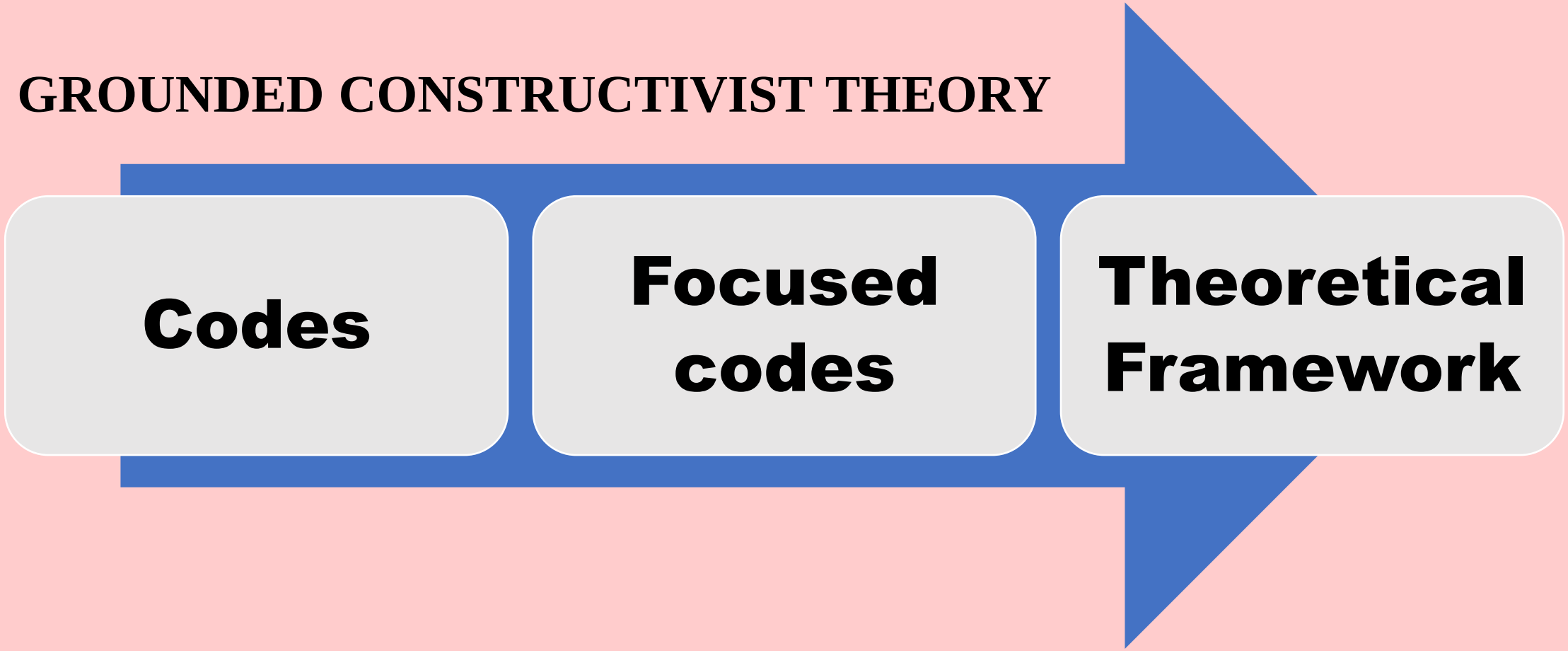
CURRICULUM VITAE

Qualitative Studies

Data= Words

Qualitative Study

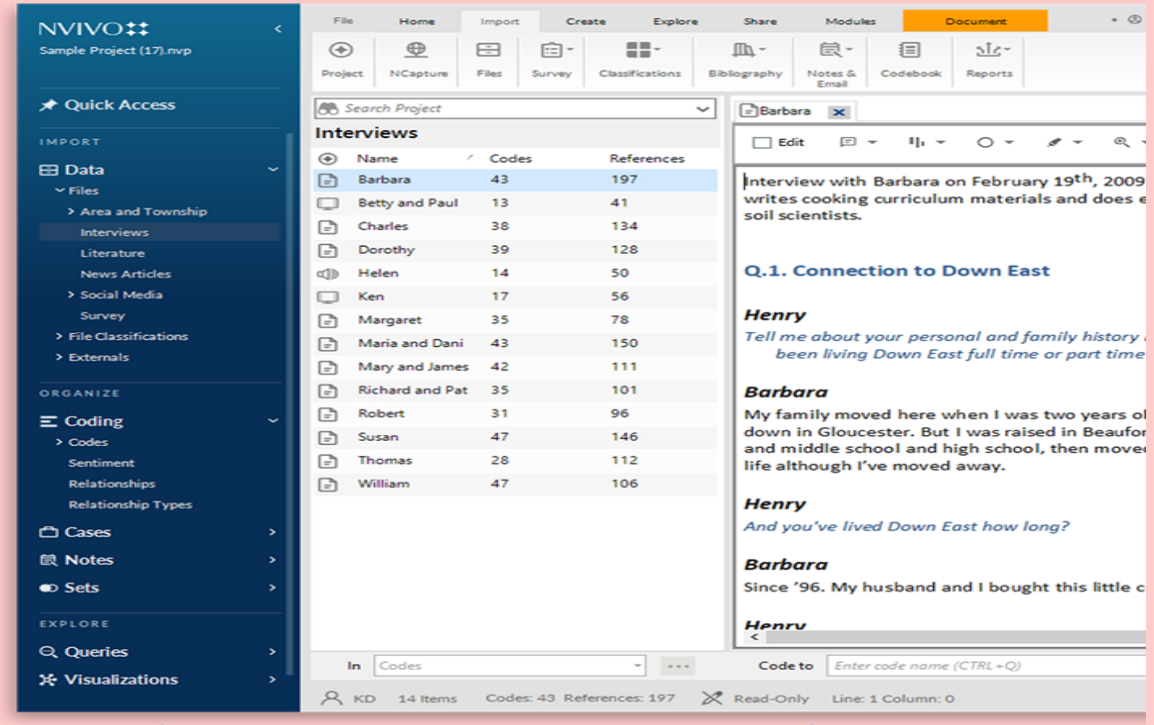
GROUNDED CONSTRUCTIVIST THEORY



Codes

BASILE	BYRD	RIVEROS	POLANIA	POWELL-WILLIAMS
Influences early childhood Early Career (mentors)	Mentorship	Closeness to Influence positions	Support	Early Life Influences
Leadership Attainment Sponsorship vs Self-promotion	Sponsorship	Roles Models	Active seeking for leadership position	Early Career Advancement
Concept of Leader	Self-Promotion	Challenges and Hurdles	Obstacles	Qualities of their Mentors
How They Viewed Themselves Self-described Self-score	Leadership training/ skills	Identity	Qualities of a leader	Successful Leadership Their Qualities
Gender Bias Sex held them back Family obligations	Early Leadership roles			How to Succeed
Positivity Charisma- X-factor	Influenced at young age to become doctor			Gender Bias Existence
				Overcoming Gender Bias

Nvivo Software



Results:

26 Participants

100% Female

Anesthesiologists

Leadership Position

RESULTS

13 Chairs

8 Presidents National Societies

3 Chiefs

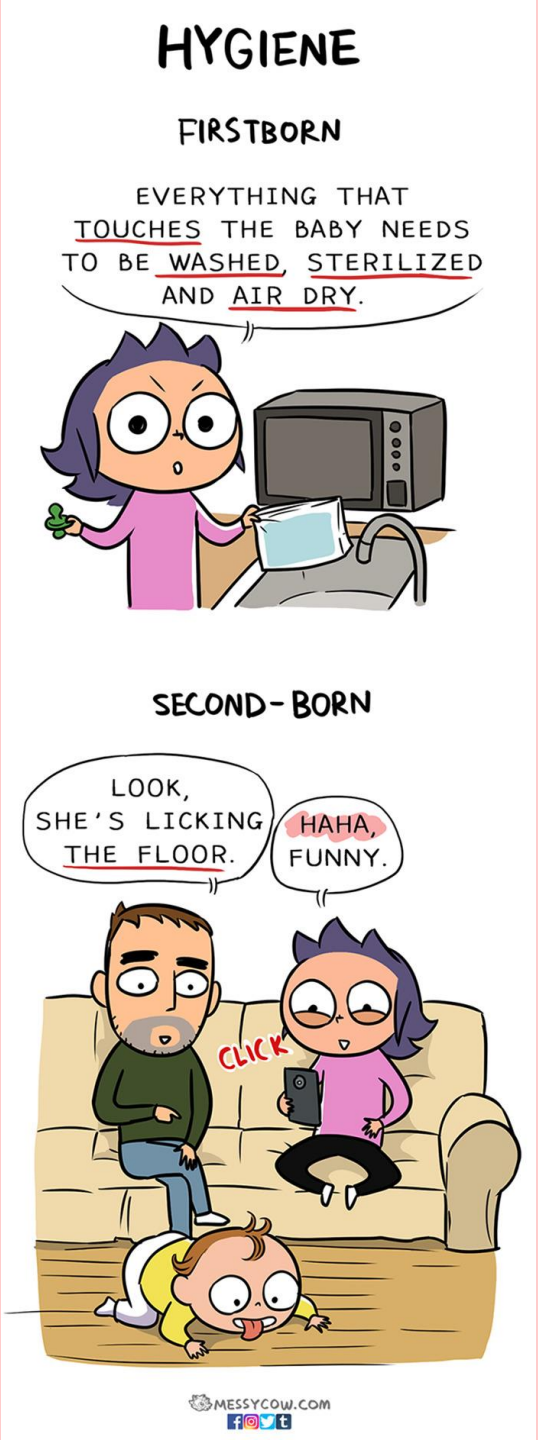
2 ABA Examiners

2 CEO/ COO

1 Vice Chair

Fun Facts

Birth Order	Number	Percent
1ST Born	17	65%
2ND Born	4	15%
3RD Born	5	19%



Academic Rank

Rank	Number	Percent
Professor	23	**88%**
Assistant Professor	1	3%
Private Practice	2	7%

21% females

AAMC

Education

- *33.4% Anesthesiology residents are women
- 2021 AAMC

Completed	#	%
Fellowship	22	84%
Leadership Course	16	61%
Chief Resident*	11	42%

Family Info

Family	Number	Percent
Married	21	80%
Married to Physician	15	71%
Children	21	80%

Final Themes

- Personality Traits
- Leadership Preparation
- Gender Related Considerations
- Leadership Acquisition

#1-Personality Traits

Adaptability

Hard Work and Challenges

Perseverance

Adaptability

”Because you have to adapt you have to figure things out”

Hard Work and Challenges

“Number one is hard work. Or maybe that’s numbers one through five”

Angela Lee Duckworth

Grit

a.k.a perseverance

#2 -LEADERSHIP PREPARATION

Networking

Courses and Coaches

High-value mentors

Leadership Preparation

Formal Leadership Courses

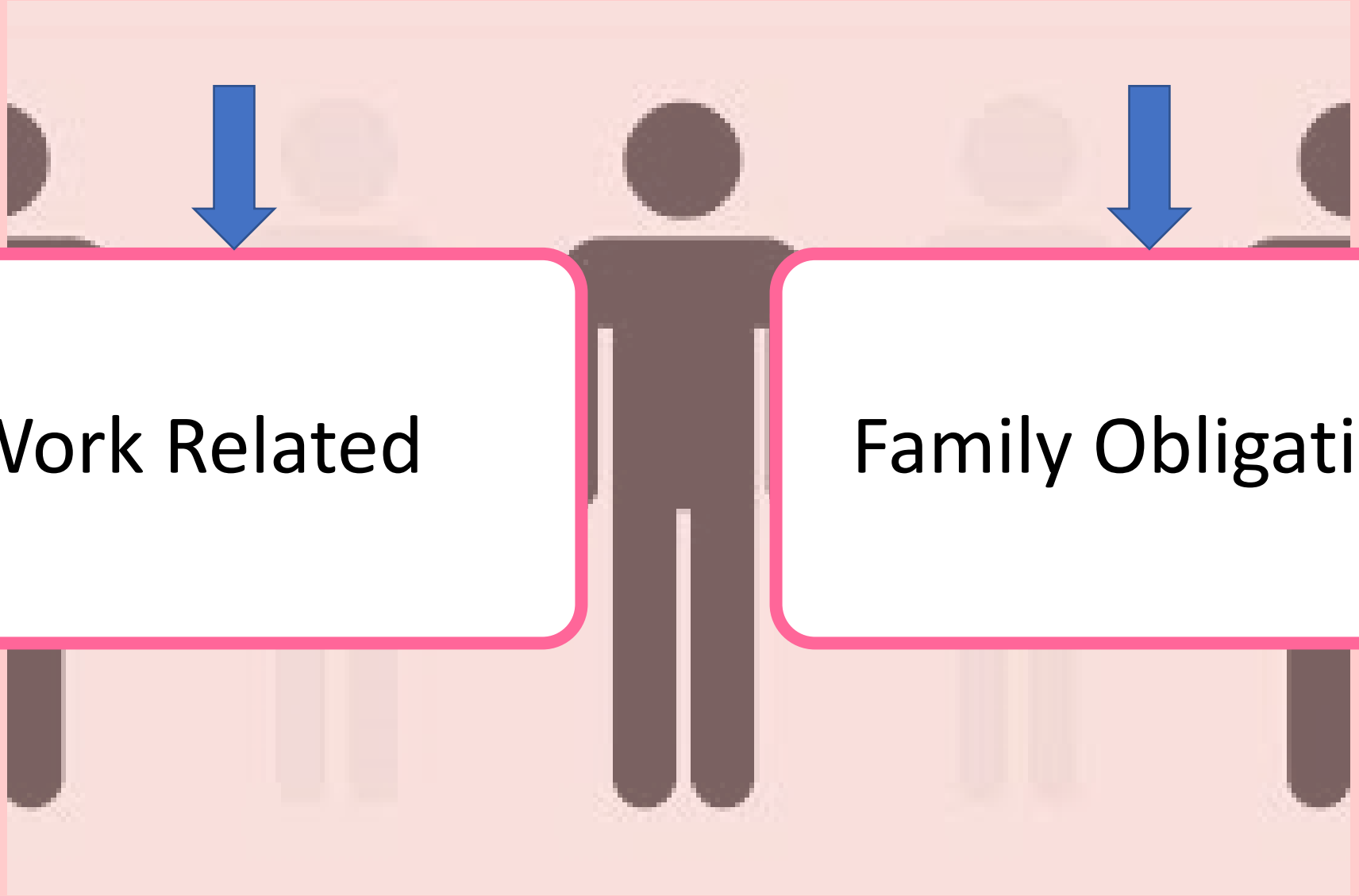
- **ASA**
- **Drexel- ELAM**
- **AAMC**
- **Harvard**

20 (76%) Early Career Mentors

13 (50%) High-Value Mentors

Participant	LEADERSHIP ROLE	HIGE-VALUE MENTOR
D	Chair	Chair
E	Chair	Chair
F	Chair	Chair
I	Chair	Chair
M	National Society President	Chief
P	National Society President	Chair & Chief
Q	National Society President	Chair & Chief
T	Chair	Chair
U	Chair	Chair
V	Chair	Chair
X	CEO	Chair
Y	PD/ ABA examiner	PD & Chief
Z	National Society President	Chair

#3– Gender Bias



Gender Bias

”I would say I have achieved what I have despite the fact that I’m not a man”

#4 – Leadership Acquisition

Self-Promotion

Sponsorship

Sponsorship

- Active Action
- Power and protégé
- Promoting
- Supporting concrete actions

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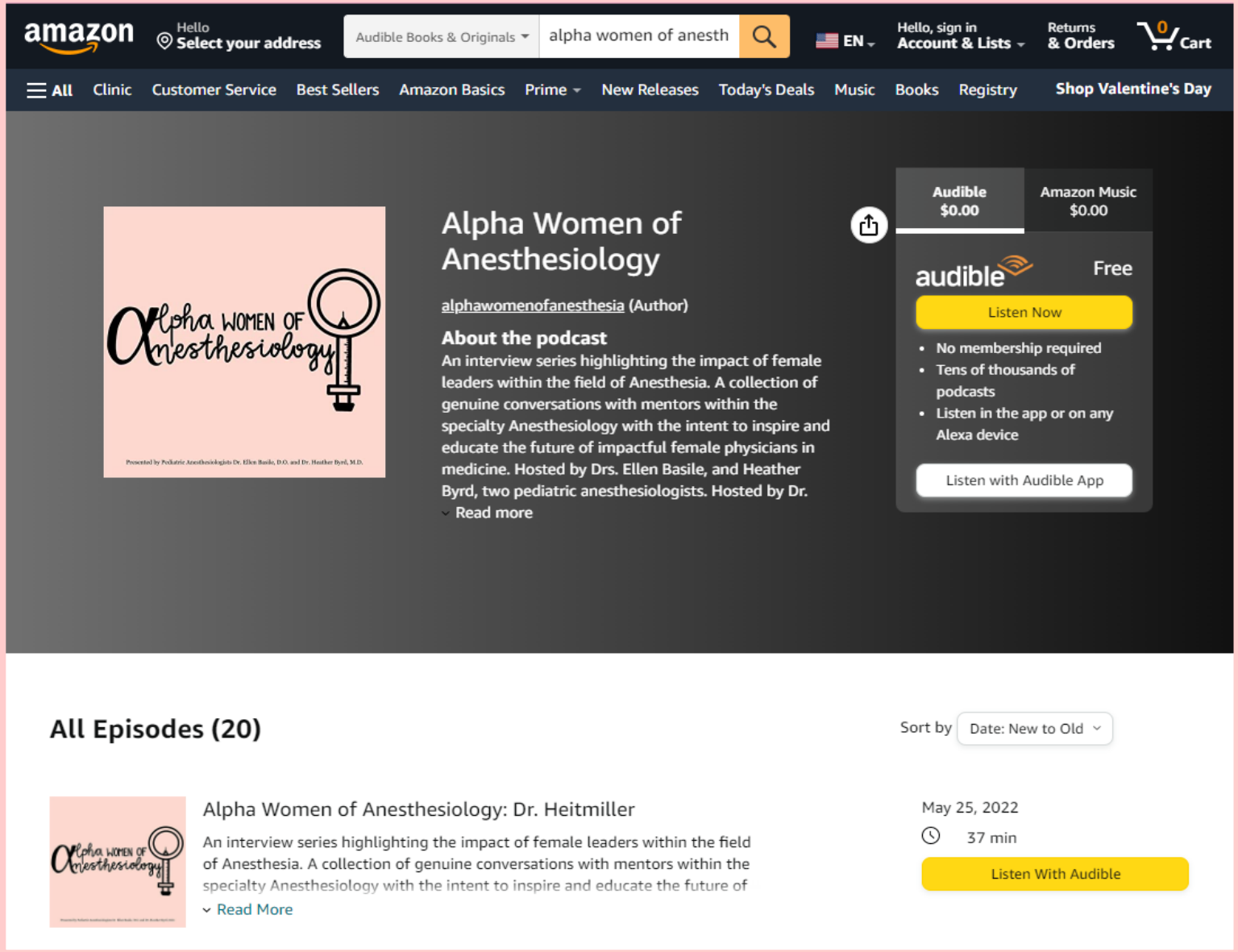

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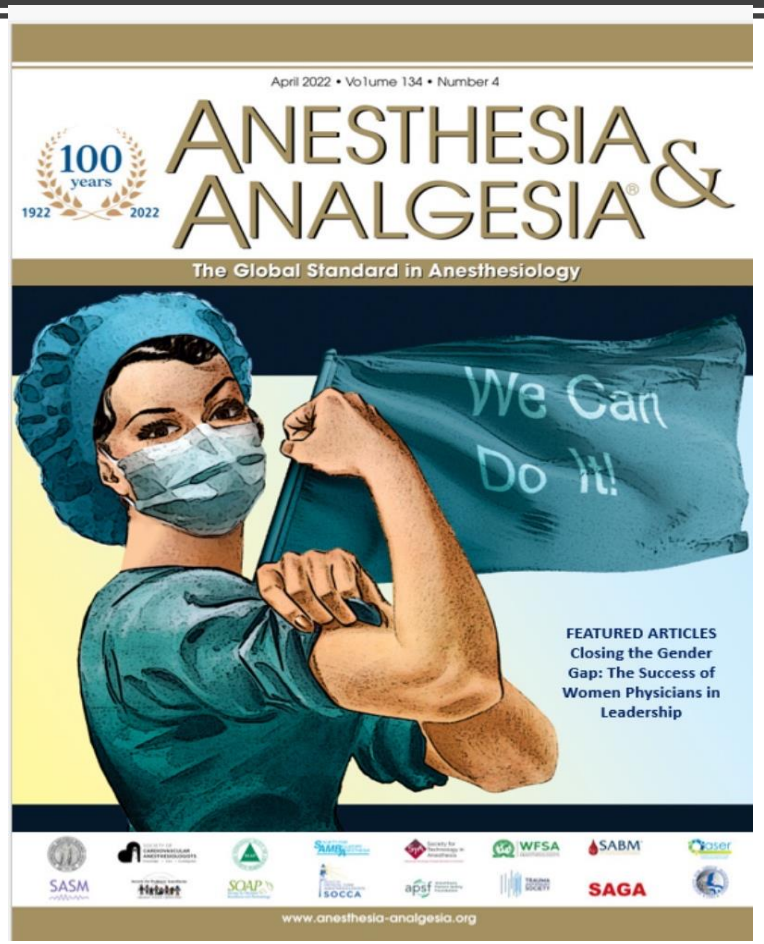

Anesthesia & Analgesia

ORIGINAL CLINICAL RESEARCH REPORT

Gender Gap: A Qualitative Study of Women and Leadership Acquisition in Anesthesiology

Ellen R. Basile, DO,* Heather Byrd, MD,† Melissa Powell-Williams, PhD,‡ Javier J. Polania Gutierrez, MD,† and Efrain Riveros-Perez, MD, MBA†

BACKGROUND: The representation of women among leaders in the field of anesthesia continues to trail that of their male counterparts. This qualitative study was conducted to understand the pathway of leadership acquisition among women in the field of anesthesiology.
METHODS: Using constructivist grounded theory, we sought to determine whether there were specific internal or external factors that were common to women in leadership in the specialty field of anesthesiology, and specifically, how they obtained leadership positions. Semistructured interviews were conducted for data collection. A total of 26 women in leadership positions in anesthesiology participated in this study.
RESULTS: The analysis of these interviews resulted in the development of 4 common themes related to career pathways for these women in leadership. Each theme was examined in depth to determine the qualities necessary for individuals to advance in the field and the pathway to obtaining leadership positions. The findings of this study showed that early-career, high-value mentorship and sponsorship were important factors in leadership acquisition. Most participants (n = 20; 76%) had early mentors. Of those with early mentorship, 13 (65%) had high-value mentors, who we define as someone with power or authority. Sponsorship was the leading factor contributing to leadership acquisition.
CONCLUSIONS: The results of this qualitative study may serve as a guide for encouraging female anesthesiologists with leadership aspirations. We suggest that the specialty field of anesthesiology institute targeted measures to help increase the percentage of women leadership with formal sponsorship programs at the local and national levels. (Anesth Analg 2022;00:00–00)

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AUDIENCE PARTICIPATION

Questions?

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